THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK,

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

"The Productions of the Earth will always be in proportion to the culture bestowed upon it."

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For the Farmers' Cabinet.

"Farming is not what 'tis cracked up to be."

Mr. Editor,—During a late sojourn at Wilmington, Delaware, I paid a visit to the whaling company's ship Ceres, then under repair for a three years' voyage, and was struck with the enormous expense incurred in such a *rebuilding* as was then in progress, which, as I was given to understand, added to the victualling of the ship for the voyage, would not amount to less than $25,000. Now, I could not but contrast this amount of outlay, in a speculation proverbially hazardous and long extended, with what is generally expended upon that of farming, where, only as many hundreds would be considered a sum by far too large to be entrusted to such a concern. In whaling, no return is calculated upon in less than three years, and even should it prove a fortunate voyage, the wear and tear and consequent expense of repair during the voyage, and particularly after return, must reduce the profits exceedingly,* while the chances of loss, with the attending vexation, hardship, trial, labour and deprivation, are sufficient to chill the heart-blood of every one who is not amphibious in his mind and habits.

Now, in farming, how different the employment as well as the probable results! In the same space of time will be realized three full returns for capital expended, besides many others of shorter dates; the whole of the operations peculiarly under the eye of the proprietor, and comparatively independent of outward circumstances; for while the sailor is compelled to be up, and bearding the elements in their roughest garb, and in the darkest and most tempestuous nights, the farmer shrugs his shoulders and retires to his peaceful bed or fireside, there to await in calm and safety the return of brighter skies and less inclement seasons. And in the event of unfruitful years, what other employment is there which is viewed with such consideration? a few weeks of drought or superabundance of rain, being sure to raise the markets for grain and meat, while even butter and eggs are not thought of too small importance to feel an elevation commensurate with the evil. And while the ill-fortune of a particular ship might be ruinous to herself, the success of others of the same character being so great as to make up for all deficiency in the market, the farmer is pretty sure to experience only neighbours' fare, and the drought which dries up his crops, or the rain which deluges his land, is taking care that his neighbours come in for their share also, thus bringing things to an equilibrium: and, besides all this, being "forewarned" he might become "fore-armed;" every thing being clear aboveboard.

But it is said, farming, even when well-conducted, leaves but little profit at the end of the year. Now it is to the *end of the year* that I look for the real profits of farming, for while extensive mercantile establishments are counting upon large returns and enormous profits arising from fortunate speculations, often indeed, by the time the ends of the year meet, there is but little in the shape of real gain remaining, after all the costs of prosecuting such a business have been defrayed, those occurring in the shape of extravagant rents, heavy commissions, frightful discounts, large amount of wages, and expensive *appearances*—then come extra rents for private dwellings, cost of collecting bills abroad, failure of expected remittances, bills renewed indefinitely, and division of profits with partners; and it is often, indeed, that the anticipated profit of 25 per cent. is reduced to less than a quarter of that sum; reminding me of the man who, on hearing his neighbour calculating upon large profits, advised him to halve it, quarter it, and divide it by nine, if he did not wish to be deceived.

But I do not think that the farmer goes the right way to work when he sits down to count his profits; for, in the first place, he

* It is said, after 6 years of uniform success until the last year, when one of their ships was lost, and under the most careful management, the Wilmington Whaling Company have not been able to make a single dividend upon their stock.

ought to debit himself with the value of every article which he has withdrawn from the farm in the shape of meat, drink and clothing, for himself and family; rent, the keep of indoor servants and horses for pleasure, in which every farmer sometimes indulges—and all these things he must put at the *market-price*, or what he would have to pay for them were he to purchase as a tradesman—eggs at 20 cents a dozen, milk at 6 cents a quart, cabbages 4 and 6 cents apiece, and cucumbers, apples, &c., at their real value, not permitting himself to indulge even in a pair of chickens, without charging for them; then, at the *end of the year*, let him take an account of his stock, the annual increase in value of which must be great, and calculate the permanent improvements which have been made upon his property; and if he is such an one as he ought to be, and has subscribed for and read the agricultural periodicals of the day, I should not fear to show up the state of his affairs by the side of many, whose *returns*—as they are called—from business, have been many times greater than his, but which have at length ceased to *return* at all, having taken to themselves wings and flown away: while the advantage of doing business for ready money must not be omitted on the farmers' side; the value of which, if he happen not to know, any tradesman can inform him of.

I know, at the present time, two merchants in partnership, who have as fine a business as could be desired, with every facility for conducting it with success; and yet, *at the end of the year* their profits are not by any means equal to what might have been expected, their expenses—commencing with the rental of a store at $1500 a year—being absolutely enormous: their greatest anxiety, however, arises from the uncertainty which they experience at the *end of the year*—so much of their property being in the hands of others, and scattered to the four quarters of the globe: and it is at that particular season, when they envy the man who, in the midst of his snug business of farming, can sit down quietly and count his possessions, with a certainty that *they* can never know, and when 5 per cent. profit in reality, would be of far more intrinsic value than 25 in anticipation. All things considered, therefore, I by no means admit that "Farming is *not* what 'tis cracked up to be." A Merchant.

August 3, 1841.

Early rising and going to the plough, or on a journey at three or four o'clock in the morning in the summer; stop at ten, and begin again at three or four o'clock in the afternoon until night, is the best mode of working for man and beast.

Cause of Inferior Stock.

Some farmers sell or slaughter their best stock of cows, ewes, or sows, and thus destroy all hope of improvement at a blow. Does a heifer show a disposition to fatten easily?—she is encouraged by feed until fat, and is then sold or eaten, while her fellows, of the breed of Pharaoh's lean kine, are kept for milk or rearing calves, because they are not and cannot become fit for the butcher. Has a farmer a sow pig that becomes fat with the feed on which the rest of his swine are starving?—he gives her over to the knife, and propagates from *land shads* and *corn-cribs*. Has he a fine, round, bright-eyed ewe?—she will be fat about the time his half-filled pork-barrels are empty, and she is stripped of her fine skin and fair proportions, simply because she is worth the trouble of killing, and thus many of our farmers perpetuate a breed of animals that are a disgrace to the country: they seem uneasy while they possess an animal that will draw the attention of their neighbours or the butcher; and woe be to it, if it put on a better appearance than its fellows! From that time its doom is sealed.

To improve the breed of animals, it is by no means necessary to incur a great expense in the purchase of crack stock from distant parts: if the farmer will take his horse and ride across the country some fine day, and view the live stock of his neighbours, he will soon perceive that there are abundance of means of bettering his circumstances by a cross or exchange at but little cost, and he by this means is improving his judgment by comparison, and hoarding up experience for a future day that will be of more value to him than the expense of many such pleasurable excursions; and improvement once begun and persisted in for a short time, will produce such a correspondent *improvement* in the mind and circumstances of the farmer as will insure its continuation and richly reward all his labour and outlay. It is only to try it.—*Selected.*

Constitution of Society.

Society, like nature, knows no vacuum—every place is filled; every man has his home and also his duties, which belong to him and to no one else. Wherever man is planted, his situation points out, perhaps *creates* his proper business—a stream here, a sea there; an earth in one spot, a mineral in another; a species of wood in this district, a plant in that, yields resources to industry, and determines the nature of man's employment; while one connexion grows out of another, and new social relations give birth to new sentiments, new labours, and new duties.—*Appland.*

To the Editor of the Farmers' Cabinet.

Rust.

Sir,—As this is the season when the hopes and fears of the husbandman are alternately raised and depressed—a period when much solicitude is evinced for the maturation of his winter crops: and as, by some visible though positively unknown agents, his labours have been blighted for several seasons past to a very alarming extent, by what is called Rust, Fungus, Mildew, Blight, &c., a few remarks and observations on the supposed cause and nature of this pest, may not at the present prove inadmissible. Much has been said and written already upon this subject, but without arriving at any definite conclusions by those who have given their views thereon. The subject is one of incalculable importance to the farmers of this country, and it is to be regretted, that so little is known of the physical laws governing the development of this annual pest. Opinions as various as the colours of the rainbow have been advanced, touching the immediate cause of rust, and its prevention; yet time and experience—the true judges of this matter—have convinced us, of the incorrectness of those opinions. There is so little positively known, relative to the cause, organization, functions, &c., of this tribe of fungi (the more informed looking upon rust at the present day as a parasitical fungus), that assertions are at best but mere conjecture, and must be received with due allowance, unless based upon physiological facts.

In taking a survey of this subject, my remarks will extend to the several opinions that have recently been started, wherein much ingenuity and eloquence have been displayed. Starting with the position, that rust is a diseased state of the plant, an excrescence formed by the rupture of the circulating vessels, and is produced by a too rapid growth in the early part of the season, occuring in those soils abounding in animal and vegetable manures—it will only be necessary to observe, that, if this be the immediate cause, we should annually have rust, throughout our fields. Further, that it cannot be excrescences, or concrete juices, exuded in consequence of overgrowth, caused by the fermentation of manures, is evident from the fact, that in the summer of eighteen hundred and forty, when blight was so extensive through many sections of the country, the prairie lands, where no manures have been applied within the recollection of man—though cultivated for years—and the sandy soils of New Jersey, many of which are so sterile as to grow a miserable crop of rye, on which no manures were applied, each shared the pestilential influence. Within the compass of my observation or knowledge, there was scarce a single exception; the rich loam, the stiff tenacious clay, or the sandy and porous soil, however rich in manures, or poor and uncultivated, blight spread its withering influence over all. There is no doubt that lands in the finest state of cultivation, where a superabundance of manures have been applied, may have contributed in a measure toward the development of fungi; yet that it is or was the *immediate* cause of the extensive formation of rust, the past season, wants further confirmation. If the doctrine of fortuitous formation be based upon this principle, and the agency of air, heat, and moisture, be accessory thereto, then there should have been no uniformity in its natural characters: such was not the case: we observe on old compost as well as new, mushrooms of different species and qualities growing side by side, after an evening or morning shower. If then it has this dependence, blight should occur yearly, in those grain-fields that have been and are highly charged with manures. Facts and experience run counter to the theory, although it may be found annually in low and moist situations: yet, like all other dormant seeds, they require a peculiar action of the seasons for their germination. Witness the growth of white clover, thistle, &c.

The opinion recently advanced by Col. Smith, is, so far as I know, new; yet, like so many other theories whose exterior at first appears plausible, will not bear the analysis of time and experience, for both are equally against it. That it may exercise a proportionate influence in bringing about the remote cause, I shall not stop to inquire; but it certainly wants the sanction of more convincing proofs, to give it validity. So far, this position may have evidence, that in ordinary seasons when rust is first discernible, it is in low, moist situations, where, if there be any grass at all, it is found in such places: but these cases are too insignificant to affect the well-established principle; rust visits those grain-fields that have no grasses sown among them: the practice of our farmers is, to seed their corn-fields with winter grain, in the month of September, before the corn comes off; but after the grain comes off the summer following, to fallow the stubble, by seeding with grain again and grass seeds—timothy in the autumn—clover, the spring coming. Now, blight or rust occurs in as great a degree in those grain-fields that have had no such grasses sown preceding fallow, as it does in those fields that have grass seed sown upon them. If the Col.'s opinion be correct, why is it that those grain-fields that have no grass upon them are not exempted, and vice versâ. Rust never was so prevalent as during the past year, within my re-

collection, on wheat, rye and oats; and for years, our most enterprising, industrious and wealthy farmers, have adopted the system of seeding with grass on summer fallow, with no apprehension of blight from such a practice. The isolated facts brought forward by Col. S., may be explained by pathological principles; yet nevertheless, are too few to merit much notice, where they are borne down by such a voluminous array of cases as can be brought against them. By what principle can the fact be explained—certainly not by that of Col. S.—where rye and wheat, standing in the same field, the latter sown at the same time, or even later, and manured with compost and lime, the former with none; the first blighted two weeks before the wheat; and at the time of blight on the rye, not a vestige discoverable upon the wheat, yet sporadic stalks of rye, standing among the wheat, affected at the same time! Such was the case, and the rye had no grass seed sown among it. Another field was similarly injured; but in this instance the rye was sown on a fallow with grass seed, and limed. The comparative yield was as three to one, the maximum being in favour of the rye that grass seed was sown among: the timothy being, throughout the whole field, very large. This is a case in point, and occurred in my own farming.

The idea of barberry causing blight, is too ridiculous for notice; yet, as a popular error, it has had, in its day, many zealous advocates in England.

The more plausible doctrine, and one which has many supporters, is, that blight is a fortuitous production, occasioned by certain actions of heat, moisture, air, &c., upon plants injured. That these agents caused blight by a specific and peculiar action of themselves, occurring at stated periods, without the intervention of pre-existing sporules, is, to say the least, problematical; and does not give a satisfactory nor philosophical reason why a partiality is manifested toward wheat and rye, whose functions and growth are so similar to other grains. If these agents are positively necessary, and rust be not an organized body, why should there not be other diseased forms manifest, than that of blight, whose appearance and characters in its formation obey certain immutable laws? Ergot, smut, mildew, &c., are diseased appearances (using the common phraseology) of grain, that show different symptoms. The characters of these several diseases are not the same, yet causes modified by the same circumstances, "et cæteris paribus," would invariably produce the same effects. To talk about rust, "which is but the outward sign of the disease that preys on the vitals within," is sheer verbosity: with as much plausibility and much more ingenuity, you might say it is tuberculous, affecting the lungs of the grain, for it first makes its appearance upon the leaves, the acknowledged organ of oxygenization and carbonization. Perhaps it may be caused by sudden transitions of heat and cold—hence consumption; then these outward signs are evidences of tuberculous disease preying upon the vitals within—the lungs. I do not wish to ridicule Mr. Gowen's opinion, for I entertain sentiments of much respect for his views on other points, by which he has enlightened the readers of the Cabinet; but I must declaim against his "stew-pans, or the shells that hold the milk;" "reservoirs or condensers that have ceased to send off from the fountain that keeps bubbling up and flowing on," &c. Perhaps of all the agents necessary for the formation of rust, no one exercises such decided and essential effects as caloric; and by inference, we may suppose it holds the balance of power in vegetable physiology as it does in the animal—for Broussais observes in one of his propositions, "Caloric, whatever may be its nature, is the first and most important of all stimulants, and if it cease to animate the economy, others lose their influence over it." Again: "Caloric brings into play the unknown power which constructs the organs. This power forms them from nutritive materials, and conducts the fluids into their interstices." Here we have, by this agent alone, organs endowed with vitality, with power to fulfil the functions governing the economy, and which of itself is sufficient to explain the vital existence of fungi.

Rust is of fungous growth, and exists to a considerable extent. Under varying and peculiar circumstances, fungus is found, but possessing different characters, among decaying masses of animal and vegetable manures, on the bark or trunks of decayed trees, as well as shrubs; on grain, grasses, &c., &c. When existing on living bodies, it is called parasitical, and approaches in many of its habits to the numerous tribes of lichens that generally subsist upon air. The mildew affecting the gooseberry, rose, &c., is a parasitical fungus, and so extensive is this tribe, that at the present day botanists enumerate between four and five thousand distinct species. Its classification may be found in the natural arrangement of Jussieu, called Uredo linearis. Its generic name signifies *blasting*, from the Latin *uredo*.

The conclusions at which I have arrived, concerning blight injuring our grain-fields, are: First—that it is a parasitical fungus. Second—that certain conditions of earth, heat, moisture, &c., are absolutely necessary for its development under any circumstances. Third—that it is reproduced by sporules, and

not fortuitously. Fourth—that among all the agents obviously manifest in its creation, electricity plays a decided and prominent part. Fifth—that grasses have no influence in its formation, for this reason—there is often no blight in those wheat or rye fields where grass abounds. Sixth—that its existence depends not upon foggy or damp mornings, nor heavy dew.

In conclusion, it is the action of natural and physical agents, controlled by the power of an invisible hand; that beneficent wisdom that directs and controls all things, whose laws are immutable and unchanging, and who exhibits a spiritual existence in the smallest and most insignificant object; who can create or destroy; an Almighty Spirit, pervading the vast and incomprehensible universe of things. We may devise these things, but, alas! our imagination is too limited to form an accurate conception of them, and science, with her mighty penetration, leaves us still in the dark.

I have been led to make the above remarks, from a perusal of the last Cabinet, wherein much is said concerning blight. I had no intention of preparing an article for your columns, still, if you think that what I have said will be any advantage to the community, I have no objection to your publishing it; if not, you will confer a favour by disposing of it according to the rules of *rejected candidates.*

Very respectfully, yours, &c.,

J. N. KEELER.

Mulberry Farm, July 10th, 1841.

To the Editor of the Farmers' Cabinet.

Wood Oil.

SIR,—In the 7th volume of the Transactions of the Agricultural and Horticultural Society of India, there is an extremely interesting account of a species of tree growing in the Tenasserim Provinces, which, by tapping somewhat after the manner practised upon the maple-trees in our country, yields an oil or balsam of most peculiar properties; the whole statement is so concise and satisfactory, that I must copy it for insertion in your pages.

"Some parts of the Tenasserim Provinces are covered with wood-oil trees, which attain an immense size; they grow without branches to the height of 60 or 70 feet, with a circumference of from 6 to 12 feet; the wood is very light and considered inferior, but charcoal made from it is the best adapted for the manufacture of gunpowder. To obtain the oil, a notch is cut into the tree not far from the ground, a receptacle like a basin is then formed, where a fire is kept up until the circulation of the sap is directed by this artificial irritation towards that part, after which the liquid begins to ooze out, and continues to run for several weeks, if the charred part is scraped away, and a new wound is inflicted. The almost incredible quantity which is thus obtained from a single tree in this way, amounts to thirty or even forty gallons; many thousands of the finest trees are available for the purpose, and hitherto totally unused. The value of this substance has never yet been properly appreciated; it is used by the natives, on account of its high inflammability, mixed with dry putrid wood wrapped in palm leaves, as torches, and is the common substitute for oil or candles used as light by all classes of the Burmans; but besides this main purpose, it is used as medicine in rheumatic diseases, and a preservative against the ternus or white ant, for which purpose it is smeared over the posts of their houses. In Calcutta it is used for the purpose of painting ships, which is truly wasteful, considering its great value for other purposes. Having chemically the greatest affinity to turpentine, it can be used for the same purposes for which the fine lac varnish by oil of turpentine is employed. When purified, it resembles the finest varnishes, which when laid upon paintings covers them with a transparent fine coating which never turns yellow, and dries quickly. There is also another most important application of this substance, in the formation of oil cloth, tarpaulings, &c., and it has been declared by naval men, who have made the experiment, that the cloth, respecting durability, is preferable to the patent *anti-mildew* canvass made in and exported from England."

On perusing this very interesting volume, I find that the Society have received packages of seeds and plants from this country, which have reached their destination in security by being placed in glazed boxes: would it not be possible to obtain by the same means specimens of the above most valuable plant? it would in all probability flourish in some of our southern states and form a noble addition to our national resources. Is there not something novel in the mode adopted to extract this oil from the tree by directing the flow of the sap by "artificial irritation" by means of fire, towards the notch cut into the tree?—and would not the same process be applicable in the operation of tapping the sugar-maple? Will those of your readers who have the means of making the experiment, put it to the test?

JOHN GERRY.

York County.

IN Persia, they take birds with a hand-net, first disguising themselves with the skin of an animal, with the horns on the top of the head.

For the Farmers' Cabinet.

Bakewell and Merino Sheep.

Mr. Editor,—In John Lawrence's valuable Treatise on Cattle, there is a highly interesting account of a cross between the pure Merinos and the Bakewell breed of sheep, which appears worthy our serious regard. It is now pretty generally conceded that the grand secret in crossing is to commence with dam the best; and amongst breeders in Europe, more care is observed in the selection of the male, as to form and constitution, than to size; indeed a preference is given for a small male rather than a large one, compared with the size of the female. Amongst the breeders of pure Devon cattle, but little regard is had to the size of the bull, his points and purity of blood are the objects for which they seek, in rearing large oxen; always choosing, as a matter of the first importance, a cow of large size and capacity for breeding.

At page 591 of Lawrence's Treatise, it is said (quoted from Thompson) "Mr. Hose, a considerable grazier at Melton Mowbray, has crossed several of his Bakewell or Dishley ewes with a Merino ram, with decisive success: I lately requested this gentleman to send me a few fleeces of the wool, which I put into the hands of Mr. Hawksley, inquiring what was the present value of such wool? His answer was, 'We will give eighteen pence per pound for two thousand packages to-morrow, and take one hundred packages weekly, by contract, at the same price, for seven years, certain.' Now this price is nearly twice as much as can at present be obtained for pure Bakewell wool, and these sheep produce little more than the Merino-Dishleys, for although the Merino shortens the staple, he thickens the pile, so that every fleece is nearly double in value. The loss that we are to look for then, is in the carcass, and this is infinitely less than will at first be supposed; it seems indeed to be now very generally agreed, that in sheep, the sire operates principally on the fleece and the dam on the carcass, which is illustrated by Mr. Hose's Merino-Dishleys, they being superior in form to any that I ever saw with Spanish blood in their veins, and having lost little, *if any*, in size. Many Bakewell breeders have their whole wool of one, two, and three years on hand, whereas Mr. Hawksley's note seems clearly to prove, that one cross with the pure Merino would make their wool immediately saleable, at a great advance of price, for seven years to come, while no deterioration would have taken place in the carcass." Lawrence adds: "The loss of size in the Merino-Dishley cross is a natural result, perfectly independent of the idea of deterioration; and as to the flesh, nothing can be better calculated than a Spanish mixture to remove the natural insipidity of Bakewell mutton."

On the subject of the deterioration of the wool by crossing, and the impossibility of preserving its fineness out of Spain, Lawrence says: "I lately exposed the following patterns of cloths to one who ought to be as capable a judge of cloth as any man in England, and who was formerly convinced of the utter impossibility of growing fine wool in this country. No. 1, given me by *himself* two years since, as the finest pattern of cloth London could produce, and made from imported Spanish wool. No. 2, *Lord Somerville's cloth, manufactured, I believe, in 1806. No. 3, a late and very beautiful pattern of Dr. Parry's Merino-Ryland cloth. The judge instantly threw aside No. 1, as totally unworthy to stand in competition! giving the preference to Dr. Parry's specimen: but on a final examination declared that he thought Lord Somerville's pattern somewhat the finest and the fabric most substantial, the other wearing the face of a beautiful lady's cloth, in appearance like those made of Saxon wool."

Now, cannot we apply the above account of a most interesting experiment to our advantage? It is supposed by some in this country that the wool is deteriorated by crossing, the fleece being neither decidedly fine or coarse, and the staple of different lengths,—neither combing or clothing—but here is proof positive, and only one among hundreds, that this is not the fact, and that a great profit is to be derived from a judicious cross with the small Merino ram on the large Dishley ewe. With regard to the flavour of the Merino mutton, Lawrence says: "I have never heard any man complain of the quality of Spanish mutton *but he who never tasted it.*"

J. L.

Reasons for Supplying Cattle with Water in their Yards.

If water cannot be obtained by cattle without going out of the yard, they will many times suffer exceedingly for the want of it, rather than go for it in very bad weather. If good fresh water can be had by them without going out of the yard, they will drink very much oftener than in the other case, especially in cold weather. The oldest and strongest cattle will generally go first to water; and when they have drunk, and are returning, they will meet the young cattle in the narrow snow path, and of course will drive them back; in which case the youngest and feeblest of the herd will have much trouble and vexation in obtaining water at all.

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* Lord Somerville's cloth was made from pure Merino, grown in England.

When cattle go to a spring to drink, especially if the snow is deep, there will generally be great difficulty in reaching the water on account of the bank of snow and ice, without stepping into it, which cattle are loth to do if they can help it; many watering places are so steep, that cattle are compelled to go down on their knees before they can reach it, and even then, they obtain it with the greatest difficulty. The cattle on many farms are obliged to travel from one-fourth to half a mile for water, and when they arrive at the spot, it is often only to be obtained by them through a hole cut in the ice, perhaps from a foot to eighteen inches in thickness. The amount of manure which is dropped and lost on such occasions is very considerable, and much of it is washed down by the rains into the hole at which they are doomed to drink, where it forms a coffee-coloured beverage, awful to behold. Every good farmer will esteem this a matter of no light importance, considering that all the manure ought to be saved, and calculating that the food of *cattle* might as properly be wasted as the food of *plants*. It has been thought that the exercise of going to water at a considerable distance, is advantageous in preventing the hoof-ail in cattle; but it is much more likely that this disorder often arises from the filth in wet weather, and freezing of the feet in very severe weather, to which they are exposed in their walks to the spring. If cattle are kept in well-sheltered yards with sheds for their protection, with uninterrupted access to good water, plenty of salt and warm beds of dry straw, it would not be too much to promise that they will remain free from the hoof-ail and every other "ail" of which we have so much complaint. There is a strong prejudice against wells for the supply of water in cattle yards, and there is a much stronger prejudice against the labour of pumping the water for them; but to an industrious man, the "prejudice" of a desire to furnish his cattle with a clean and wholesome *beverage*, cool in the summer and warm in the winter, will be stronger than either.—*Selected.*

For the Farmers' Cabinet.

Choice Rules in Stock-Breeding.

Mr. Editor,—In perusing a very interesting work, entitled "Observations on Domestic Animals," by Cline, the great anatomist, I have been struck with the strong and rational mode in which he treats the subject, and cannot but think your readers will feel equal interest in the examination of a system which, in my opinion, carries with it conviction; conceiving that the greatest advantages would accrue from an application of the science which he promulgates. The work has been published more than thirty years, and we are led to wonder that the principles, laid down by one of the first men of the age, have hitherto made so slow a progress amongst the breeders of live stock: with me, there is no question that Bakewell's success was founded upon the philosophy of this system, and were it carried out, the greatest benefits and most perfect results would no doubt follow its adoption in every country. I have long thought that the universal practice of selecting the largest males for the purpose of crossing our breeds of domestic animals, without regard to the size and form of the female, or the nature of the food with which the stock is to be supplied and the improved breed supported, was altogether wrong; but had no idea of the irrationality of the custom, until I saw it pointed out in the above work, from which I proceed, with your permission, to make a few extracts for publication in the pages of the Cabinet for our future guidance. Mr. Cline observes:

"Although the form of domestic animals has been greatly improved by selecting with care those possessed of the best shape for breeding, yet the *theory* of improvement has not been *so* well understood, that rules could be laid down for directing the practice in every case; and although the *external* form has been much studied and the proportions well ascertained, these are but indications of *internal* structure,—the principles of improving it must, therefore, be founded on a knowledge of the structure and use of the *internal* parts; and of these, the *lungs* are of the first importance; it is on their size and soundness that the strength and health of an animal principally depend, the power of converting food into nourishment being in proportion to their size, an animal with large lungs being capable of converting a given quantity of food into more nourishment than one with smaller lungs, and therefore having a greater aptitude to fatten. The external indications of the size of the lungs are, the form and size of the chest, but a *deep* chest is not capacious, unless it be proportionally broad.

"The *pelvis* is the cavity formed by the junction of the haunch-bones with the bone of the rump, and it is essential that this cavity should be large and capacious; its size is indicated by the width of the hips and the breadth of the twist—which is the junction of the thighs—the breadth of the loins being always in proportion to that of the chest and pelvis. The head should be small; the length of the neck in proportion to the height of the animal; the muscles and tendons large, the strength of the animal depending more on the muscles or tendons than on the bones: many animals with large bones are still weak, and those that are imperfectly nourished dur-

ing their growth, have their bones often disproportionately large. A compact, round-made body, a deep, full chest, a broad loin, full flank and straight back, a small head and clean chaps, with fine tapering neck, limbs and bones not coarse and large, a soft but not thick skin, with soft and fine hair, are amongst the chief marks of a good kind.

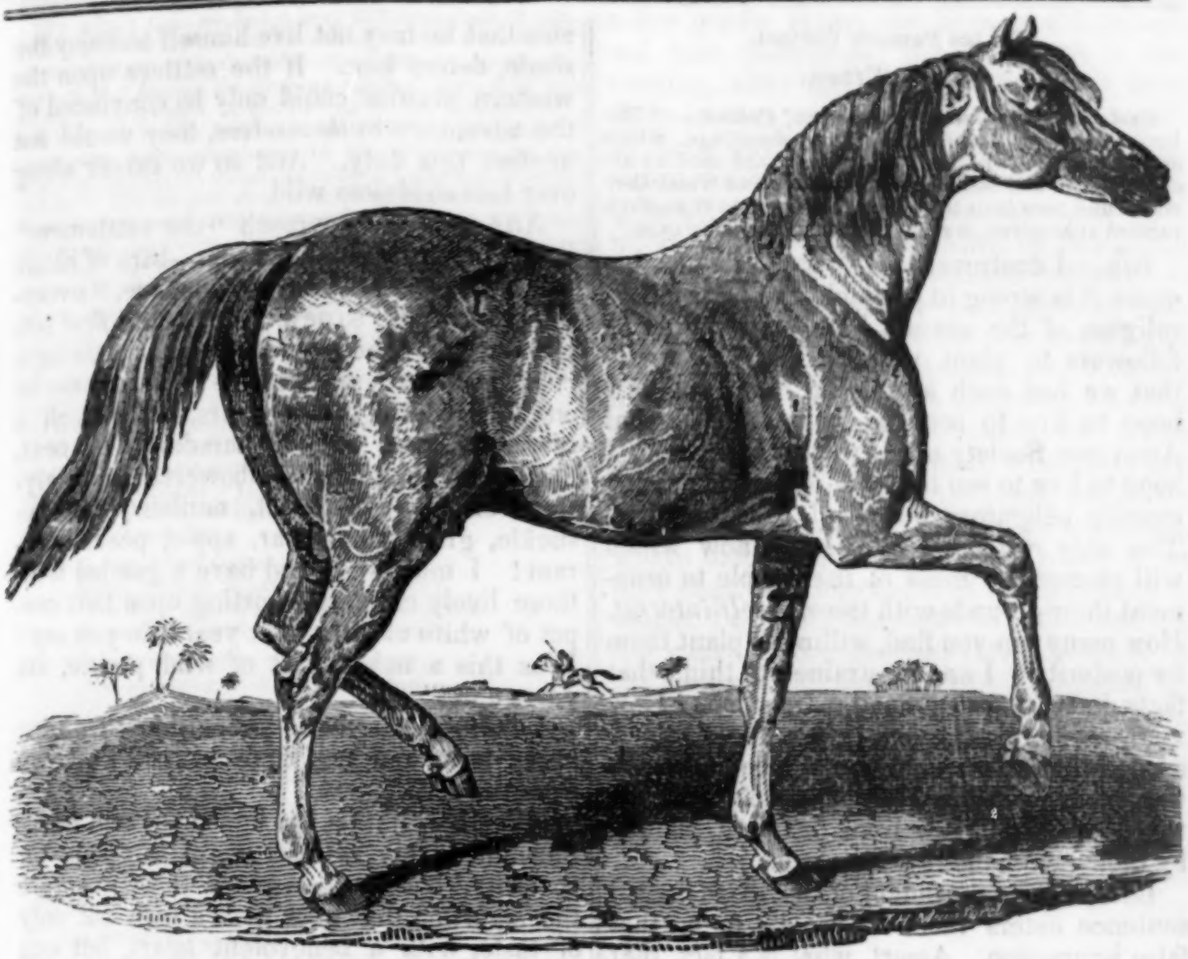
"It has been generally supposed, that the breed of animals is improved by the largest males: this opinion has done considerable mischief, and probably would have done more, if it had not been counteracted by the desire of selecting animals of the best form and proportions, which are rarely to be met with in those of the *largest* size; experience has proved that crossing has only succeeded, in an eminent degree, in those instances in which the females were larger than in the usual proportion of females to males, and that it has generally failed when the males were disproportionately large. If a well-formed large buck be put to small ewes, the lambs will not be so well shaped as their parent; but if a good *small* buck be put to larger ewes, the lambs will be of an improved form: the improvement depends on this principle, that the power of the female to supply her offspring with nourishment, is in proportion to her size and to the power of nourishing herself from the excellence of her constitution. The size of the fœtus is generally in proportion to that of the female parent, and therefore, when she is disproportionately small, the quantity of *nourishment* is disproportionately small, and her offspring has all the *disproportions* of a starveling: but when the female, from her size and good constitution, is more adequate to the nourishment of a fœtus of a male smaller than herself, the growth will be proportionately larger; the larger female has also a greater quantity of milk, and her offspring is more abundantly supplied with nourishment after birth. To produce the most perfectly-formed animal, abundant nourishment is necessary from the earliest period of its existence, until its growth is complete.

"To obtain animals with large lungs, *crossing* is the most expeditious method, because well-formed females may be selected from a variety of a large size, to be put to a well-formed male that is rather smaller;—by such a mode of crossing, the lungs and heart become larger in consequence of a peculiarity in the circulation of the fœtus, which causes a larger proportion of the blood, under such circumstances, to be distributed to the lungs than to other parts of the body, and as the shape and size of the chest depend upon that of the lungs, hence arises the remarkably large chest, which is produced by crossing with females that are larger than the males: but this practice must be limited, for it may be carried to such an extent that the bulk of the body might be so disproportioned to the size of the limbs, as to prevent the animal from moving with sufficient facility, so that, where activity is required, this practice must not be extended so far as in those which are intended for the food of man. The kinds of animals selected for cross-breeding ought never to be of *very* different habits and sizes, for, notwithstanding the confessed advantages derived from cross-breeding, yet, great or sudden changes are highly improper, that having often been found injurious to the health and character of the stock: the use of bucks of the pure Dishley or Bakewell stock has, with several coarse flocks of sheep, been attended with no sensible advantage, owing to this cause, the characters and habits of the breeds being so widely dissimilar. Whenever, then, cross-breeding is attempted, care ought always to be taken to do it gradually, and to rear the progeny in a proper manner; and when the matching is conducted progressively, and with due attention to the diversity of habit in the animals, it succeeds well; the chief art being, to begin gradually at first, and in process of time, as the blood of one family is diminished, that of the other will be increased, till improvement to the degree wished for be attained by gradual approximation.

"The great improvement of the breed of horses in England arose from crossing with those diminutive stallions, Barbs and Arabians; and the introduction of Flemish mares was the source of improvement in the larger breed of cart-horses; the form of the swine has also been greatly improved by crossing with the small Chinese boar: but when it became the fashion in London to drive large bay horses in carriages, the farmers in Yorkshire put their mares to much larger horses than usual, and thus did infinite mischief to their breed, by producing a race of small-chested, long-legged, large-boned, worthless animals; and a similar project was adopted in Normandy, for the purpose of enlarging their breed of horses, by the use of the Holstein stallion, by which the best breed of horses in France would have been spoiled, had not the farmers discovered their mistake in time, by observing the offspring much inferior in form, to that produced by their own horses."

A Subscriber.

How small a portion of our information can be derived from our own experience! Amongst the most *practical*, the cheapest, and by far the largest portion of knowledge, must be derived from the information afforded by the experience of others.



THE WELLESLEY ARABIAN.

THROUGH the kindness of a friend, we are enabled to present to our readers the portrait of the noblest horse that was ever imported into England. His amazing strength and great weight of carcass unfitted him for the turf, but this very circumstance rendered him doubly valuable for more useful purposes. His portrait, originally from the life, is by MARSHALL, engraved in the line manner by SCOTT, the best animal engraver of his day; and from this chef d'œuvre of the arts, the present engraving has been made expressly for our work, and of the exact original size.

The author of that grand work, "The correct delineation of the Horse," remarks: "The present writer having seen this fine horse, can vouch for the truth of Mr. Marshall's drawing. This horse, in figure bearing considerable resemblance to the larger war-horse of Europe, although possessing the delicate skin and various other attributes of the South-eastern courser, it may be conjectured was the produce of some country bordering upon Arabia, where, as in England, the Arabian or Barbary horse in process of time acquires an increase of size and fulness of form, together with considerable expansion of the hoofs; this being, no doubt, the effect of lower and more moist grounds and more succulent food than can be found in the deserts, where the dryness and purity of the air and soil compress the animal body, impart a superior firmness and elasticity to the tendons and fibrous system, allowing greater powers in a smaller compass of substance, and exalting the tone and vigour of the animal spirits. Thus, horses are chosen from the *deserts* for their fleetness and courage, and those from the *mountainous regions* are preferred as coursers.

"The Arabians have always been breeders of horses for sale, but can scarcely be induced to part with their mares at any price. No people on earth can come into competition with them for their solicitude and care in respect to the pedigrees of their horses; it exceeds even that, in the same case, bestowed upon monarchs and royal families! The performance of the marriage ceremony between an Arabian horse and mare of noble blood, must be first of all publicly announced, that the necessary witnesses—men of the highest rank in the country—may be present to attest the fact; and the same ceremony is repeated at the birth of the foal; and there are numbers of undoubtedly authentic pedigrees upwards of 500 years old. And nowhere is the horse treated with such consideration, or, as it might be termed, *fellow-feeling* as in Arabia, and as a consequence, no horse equals the Arabian in kindness and affection to human nature and the approach to rationality. The Arab, his wife and children, his mare and foal, repose together under the same roof and on the same bed, the foal often resting upon the bosom of the wife, and the children sleeping on the neck and body of the mare, without the least apprehension that the gentle creature will do injury to her charge! The Arab never beats his horse, but discourses and reasons with him, allowing him an equal share with himself of the necessaries of life; and the result demonstrates the rationality of the system."

For the Farmers' Cabinet.

Shade Trees.

Quotation from June No., Farmers' Cabinet. — "The beautiful shade trees before your dwellings, which shield you from the heat of summer, and shed an air of fragrance and beauty around the spot on which they stand, and your fruit trees from which you have so often regaled yourselves, WERE PLANTED BY OTHER HANDS."

Sir,—I controvert that point. I do so, because it is wrong in principle and fact. "The religion of the ancient Persians required its followers to plant useful trees." I would that we had such a religion here, and as I hope to live to see the proposed National American Society of Agriculture flourish, I hope to live to see *that* one of its tenets, and morally obligatory upon all the members. The only *religious obligation* now which will prompt the mass of the people to ornament their grounds with trees, is *self-interest.* How many can you find, willing to plant them for posterity? I am constrained to think that facts indicate but a small proportion. How many would plant them, if they could be persuaded that they would live to love and enjoy the cooling and refreshing pleasure of the tree that would grow from the seed planted by their own hands?—Thousands.

But the false sentiment of the above quoted sentence deters them. Correct, then, that false impression. Assert, what is a fact, that if every couple when they unite themselves in that holy, happy tie that holds the human family together, would plant the seed of some useful or ornamental tree before their door, they might live to sit under its shade, and sing,

> When this old tree was new,
> And our fond hearts were young,
> The tender plant we till'd
> And morn's gay carol sung, &c.

What a happifying train of reflections would arise!—"This tree," says the father to his children, "was not planted by *other* hands.—It is my own work.—It is a living monument of the blessed union of your parents."

Mr. Editor, to prove that shade trees may be planted and enjoyed by ourselves, let me take you a short ride in the burning sun of this day, across one of the western prairies. The road is familiar to me—I will make it so to you.

Ah, here we are, just emerging from the west side of a grove—seven miles to the next shade. "Oh, how the sun glares down upon us!" "Delightful, beautiful, rich prospect; but how bare of shade!" "How the cattle must suffer, such a day as this!" "Ah, here is a cabin well out on the prairie! but, desolation! not a single green leaf floating in this gentle breeze!" "Why don't the man plant a few shade trees? they would be useful to his children." Yes; but it is that very sentiment of yours that prevents him. The idea that he may not live himself to enjoy the shade, deters him. If the settlers upon the western prairies could only be convinced of the advantage to *themselves*, they would not neglect this duty. And so we career along over this shadeless wild.

Ah! now we approach "the settlement" again. Here is another cabin—bare of shade trees, too. "But," as you observe, "everything here looks so new!" Yes; the *first* settlement was made here only six years ago. "Oh, no—that ain't possible! Here must be one older — why it appears, after such a scorching ride, a very paradise! A neat, clean log cabin, fairly embowered in an elysium of shade, — locust, mulberry, honeysuckle, grape vine, pear, apple, peach, currant! I must stop, and have a gambol with those lively children, sporting upon that carpet of white clover. Six years, do you say! Was this a naked spot of wild prairie, six years ago?"

Yea, less than that—and within that time every bush and turf here has been grown from the seed.

"Well, well, this is a lesson.—I will never recommend my readers again to 'plant for posterity,' but *for themselves.* I will venture the assertion that here lives a man not only of taste, with a benevolent heart, but one who——"

Has acquired this taste from reading Agricultural Papers—let me add, to finish your sentence.

"Yes, yes, and let me add, from writing for them too.—'Tis all explained now. That wild and merry shout — Oh, how it thrills through my heart! — 'Father's come — Father's come!' — that tells the whole story: and I shall then cool myself under that delightful shade, *planted with your own hands.* Oh, how delightful! — No, no, my boy — no chair—nothing so pleasant after such a burning ride, as a roll upon the clean sweet grass. And such water!—Children all pictures of health. No wonder you are a contented, happy man, and fond of your home. Give me your hand! Indeed I do not envy you; but I wish every soul who sees this would *plant some shade trees around his house.*"

Mr. Editor,—I am not very familiar with your readers, and this may appear a little egotistical; but it is a way I have of illustrating. You know me better yourself—that is, at a distance — and by and by you will know me personally, for I am coming to have a chat with you under your *shade tree.*

This is a hot day and a cool subject; but I hope it never will cool the ardour that you and I feel to promote agricultural improvement. I am your stranger friend,

Solon Robinson.

Lake C. H., Ia., June 29, 1841.

We admit that we had a very different class of persons in view when the sentiment alluded to was inserted in the pages of the Cabinet—those who do good for the love of it, "hoping for nothing again;" men who are actuated by a spirit of self-devotion, not self-interest; and to such, it was our desire to direct the *gratitude* of those who have luxuriated in the shade and on the fruits of those trees which have been "planted by other hands." We confess also, there was one of them who stood conspicuous,—the father of the present Mr. John Vaughan—to whom the citizens of Philadelphia are indebted for the delicious shade of their beautiful streets; it was he who planted that noble row of elms which surrounds Independence Square, observing at the time, "It is my desire that the citizens of the next generation shall enjoy the luxury of a shady walk under a burning sun." We are sure our intelligent and interesting correspondent is quite right in the view he has taken of the subject; but we suspect there may be another reason why the settlers of the west feel so little care for planting trees—so many of them calculating on a removal "year after next." The feelings which we desired to inculcate were those of *Benevolence* and *Gratitude.*

"O say, what virtue of the great,
Gives highest polish to their state?
'T is that, which gladness can dispense
To sorrow — sweet BENEVOLENCE!

O say, what glory gilds the shed,
And throws a halo round the bed
Of *Poverty* — so low and rude?
'T is the mild beam of GRATITUDE!" ED.

For the Farmers' Cabinet.

The Bee Moth.

MR. EDITOR,—It would appear that "Bee-breeding" is to share a large portion of the attention of the community the next year. It is a deserving object, and might be made both profitable and agreeable, in proper situations and under careful management; but neither will that or any other pursuit succeed, unless it be well attended to and made a regular business. Already there are numerous contrivances to stop the ravages of the bee moth, but to me, in this as in most other cases, it seems by far better to *prevent* the evil by keeping the bees strong and healthy; and it is only a part of the system which I have laid down for myself, to consider the moth the *effect*, rather than the *cause* of the destruction complained of. I believe that the moth has no desire to deposit its eggs in a hive, until it knows by instinct that the swarm is unhealthy; by the putricity which is then engendered, it is taught that its services will soon be required, according to that beautiful theory so well set forth by Agricola, "wherever animal or vegetable substances are in the progress of decay, mouths are found ever ready to convert dead matter into food for living things."

And this is no new idea; I knew, many years ago, a person who kept from 20 to 30 hives of bees with uniform success, but he was peculiarly attentive to the moths, and when he saw them flitting around the entrance of any particular hive, he knew that the bees were sickly, and he would immediately remove them to a clean hive, by turning the box which contained them, placing upon it an empty hive; and by giving the lower box a few gentle blows, the bees would ascend and take possession: this was done in the evening, after the bees had returned from their labours, and the next day they would be found busily employed on their new premises, without any fear of the moth. Now, it is all very pretty — these ingenious contrivances to deceive the moths by furnishing them with large and convenient entrances to sham boxes, brushed over with honey or wax, while the bees are restricted to one small and inconvenient hole of entrance—but I do not consider that nature is so imperfect as to be so easily bamboozled; I believe the moths know full as well as the man, when they are *inside* the hive, and that they will not be induced to deposit their eggs in an out-house, where there is no food for their young when they come into existence. I beg therefore to repeat, I consider the moth the *effect* and not the *cause* of the mischief; the sickness of the bees and the putricity of the internal atmosphere of the hive being the true cause, teaching them that the labours of their progeny will soon be required to act the part of the turkey-buzzard. Remove the cause, therefore, and the effect will cease — depending upon it, that "when the constitution is in a healthy state, there is little liability to infection of any kind."

Let then, all those who enter the race of bee-breeding be attentive to this, and by shifting the swarms to other boxes so soon as they perceive them attacked by the moth, they will, I am persuaded, find that prevention is much easier than cure. With me, there is no doubt, the *cause of sickness* often arises from the system of withdrawing the honey by means of boxes and glasses placed on the top of the hive, reducing the bees to the necessity of ever breeding in the same cells, by which they become filthy and putrid; I therefore much prefer to add another box below, on removing one from above, according to the plan proposed in that interesting little work, "Bee-breeding in the West," which is quite a *manual of the art.* In Weeks's late work on the same subject, the evil here pointed out is admitted to its full extent, but, strange to say, it is proposed to be remedied only by transferring the bees to another hive; it is said, "when bees have occupied one tenement for several years, the comb becomes thick and filthy by being filled up with the old bread and cocoons made by young bees when transformed from a larva to the perfect fly; and are so contracted that the bees come forth but mere dwarfs, and cease to swarm;" and yet, by the use of the Vermont hive, they are compelled to breed in the same cells continually. It would appear, therefore, that these patent palaces are constructed on false principles. VIR.

For the Farmers' Cabinet.

Ornamental Planting.

The efforts of agriculturists in America have been hitherto almost entirely utilitarian. Their principal aim has been to secure good crops, and to keep their lands in the best possible condition, while too little attention has been paid to ornament and taste, in the arrangement of their grounds and buildings. In many parts of the country the traveller may pass through large and fertile tracts, and his eye will meet buildings of every class, from the cottage of the daily labourer to the house of the independent farmer or the spacious mansion of the wealthy, yet find no relief from the glare of a summer's sun. Often, not a tree or shrub can be seen in their vicinity, or if there should be any, they are scattered with so little care or taste, that they would at once stamp the owner as devoid of all perception of the beautiful. The very forest trees — whose noble size would more than grace the park of an English nobleman—are mercilessly cut down, and many a pleasant residence stripped of its finest ornaments; and this, too, in a country where nature has scattered with a lavish hand all that is beautiful in vegetation. Nowhere in Europe or the tropics, can be found our noble forests with their fresh greenness of spring and gorgeous hues of autumn, or our rolling prairies, where the most beautiful flowers flourish in the wildest luxuriance. Yet with all this around us, we remain insensible to its beauty, and casting from us all those pleasures that address themselves to the eye or the mind, spend our days in obtaining that wherewith to eat, drink, and be clothed. I would not say that this is universally the case, for there are instances to the contrary, and the environs of our principal cities can boast of many a beautiful country-seat with its well-planted lawn and ornamental shrubbery, yet it is with the practical farmer that this taste should increasingly prevail. At a very trifling expense, and by the employment of his leisure hours, he could surround his house with forest trees and shrubbery; and with the exercise of that *ingenuity* — which is said to be *native* with every American — impart to the whole place an air of rural beauty.

Nor would the cultivation of such a taste render his other employments more irksome, his home less pleasant, or his domestic circle less cheerful: on the contrary, it would lend a double charm to all, and enhance tenfold his enjoyment of things around him.

It would increase his love of nature; and, giving him a deep appreciation of her charms, would insensibly refine his feelings and make him a happier man. We should then see none of that want of taste which strikes the traveller so unpleasantly at every step, and which is almost a characteristic of us money-getting Americans; and our country — than which none can be found possessing superior natural advantages — would appear as one garden, replete with everything for the enjoyment as well as support of life. May we not, then, venture to hope that our agricultural papers will devote more attention to this branch of their subject; that they will obtain and circulate information respecting it, and encourage the practical farmer not only to attend to the means of sustenance, but to cultivate a taste for those beautiful things which have been so bountifully showered upon us. P.

For the Farmers' Cabinet.

Rotation of Crops.

I have been amused, while reading in different agricultural publications, the various and very dissimilar propositions for the formation of a course of crops. It is admitted to be a subject of paramount importance, and has called forth the consideration of almost every one who is practically engaged in the science of agriculture, as well as of many who have scarcely ever held an acre of land in their lives. It is a fertile subject for speculation, while upon it depends much of the weal or woe of the husbandman; at the same time, it must be confessed that many of the most egregiously false systems that are propagated, have emanated from really practical men — a proof that practice is not always in alliance with sound theory. It is readily admitted, that different soils require different management; but the rule, that no two grain crops follow in succession on any soil and under any circumstances, ought always religiously to be observed.

In a late work, entitled "The complete Practical Farmer, by an American," I find the following instructions for a rotation of crops, and am constrained to ask, can *mere theory* be more wide of the mark than *mere practice;* or rather, is it possible that the writer could be a "practical farmer," exonerating him from the charge of being "complete" in his profession? He says: "If the soil be a stiff dry clay, the first crop may be oats, well harrowed in the sward; turn the stubble under, and in the fall of the year throw up the ground into high narrow ridges; cleave these down in the spring, and prepare the ground for barley, after manuring with suitable compost: plough up immediately after harvest, and put in wheat in the fall, and in the spring harrow in clover and timothy." Now here are three grain crops in succes-

sion, with barley on the most unsuitable soil —a stiff dry clay—without seeds. The plan of winter fallowing, throwing up the land into high narrow ridges to receive the benefit of the winter's frost, is admirable, and ill accords with what follows. Without prejudice, such a man may be suspected of paper farming.

Perhaps the nearest approach to a regular and judicious course, is that which is proposed in the first article in the Cabinet, number for July, over the signature S. I would not, however, exclude oats from the rotation, for the value of that crop, when cut up in the straw without threshing, as winter food for cattle, and in connection with roots, is almost invaluable, and will one day be properly appreciated. They should be sown thickly on land that has been ploughed deep in the autumn and left exposed to the winter frosts, harrowing them in without a second ploughing as soon as the land will work in February, permitting them to freeze in, if it should so happen; the crop will not become ripe the sooner for such early sowing, but will have longer time to perfect the straw before the shooting of the ear; by such means very large crops may be obtained from suitable soils, which ought to be stiff and cool; and the straw from these would be of far more value than the whole of many of those crops which are to be met with every year with the common mode of management. Can any one say, why wheat should not follow corn, seeded in the spring with clover and timothy? Is not a clean, unexhausted, well pulverized soil, exactly what is desired to insure the most perfect success to our seeds?—and if these are top-dressed the next spring and mown twice for hay that summer, there could not be a more suitable seed-bed for wheat, after once ploughing; roots, however, following, with manure;—in short, *anything* but the "Complete Practical Farmer's" rotation—oats, barley, wheat, or the more common but highly exceptionable mode, corn, oats, wheat. There is no longer any difficulty in clearing off the corn in time for wheat-sowing in common seasons, as the business is so expeditiously and easily performed by means of the simple machine described at page 73 of the 5th vol. of the Cabinet, which has been in use for this purpose.

In conclusion, what say our "practical friends" to the following rotation: 1st. An old sward—ploughed deep in autumn or early winter, and left exposed to the frosts—oats, sown in February, if seasonable weather, and harrowed in without a second ploughing. 2d. Roots, and green crops, (potatoes, &c.) 3d. Corn. 4th. Wheat, seeded in the spring, and the next year top-dressed; mown twice for hay and broken up for wheat; or kept in grass another year, or perhaps two, for feeding; and then break up for oats? E.

York County.

We would suggest to our correspondent the practicability of obtaining a crop of buckwheat from the oat-stubble, if it be turned in immediately after harvest: and if it be in contemplation to cut the oats into chaff without threshing, the crop might be harvested a week earlier than usual, with great advantage; the straw will be of better quality, sweeter and more nutritious, the grain suffering no injury whatever.—Ed.

To the Editor of the Farmers' Cabinet.

Large Calf.

Sir,—I send you the weight of the calf "Brandywine," which you may remember seeing at the exhibition of the Chester-County Agricultural Society last October, his dam "Ellen," a three-fourth blood cow, taking the premium as the best cow of "improved breed." He is this day one year old, and on the platform scales at Marshallton, balances exactly 1056 lbs. I had weighed him previously when eleven months old, and found his weight to be 956 lbs., so that his increase has been 100 lbs. in thirty days—a gain perhaps unprecedented, his food being the common grass of the pasture, which, however, is of good quality—and not having tasted meal of any kind since he went to grass in April last.

Need I say, this superb animal was sired by Mr. Paschall Morris's bull "His Grace," whose stock is winning golden opinions throughout the country; showing most conclusively the truth of the axiom, long admitted and practised in England, that the male should be finely formed, rather than large, the dependence for heavy cattle being placed rather on the dam than the sire.

I see, by the last number of the Cabinet, that Mr. Morris, having a young bull sired by "His Grace"—*Henry Clay*, which took the first premium at the last Philadelphia Society's exhibition—will be induced to dispose of "His Grace" the present season: I would willingly believe that he will not be permitted to go far from this part of the country, where the improvement from his get is so manifest, that it is not difficult to point out his calves from others, on first entering the pasture.

It is long since last we saw you here; on your next visit we shall be prepared to show you some of the most elegant full-blood and half-bred animals in the state, several of which will, in all probability, find their way to the Philadelphia exhibition, to be held at the Rising Sun, on the 29th and 30th September next, and where I hope to meet you.

John H. Kelly.

East Bradford, Chester Co.,
July 20, 1841.

For the Farmers' Cabinet.

Improvement of Exhausted Soils.

Mr. Editor,—Returning the other day by stage from Baltimore, our route lay through lands which are a caution to behold! The farm, which I was informed consists of about 200 acres, is in the most deplorable state of poverty and wretchedness that can be imagined, although the owner has of late done much towards repairing and adding to the buildings, the erection of fences, &c. The fields lie very conveniently around the house, are large and easy of access, free from obstacles and of level surface, but the weeds completely occupy the soil, and have left no space for any cultivated plant whatever; the St. John's-wort and the gigantic mullein reign triumphant and unmolested, and in its present state, the occupation must be ruinous to any one who would undertake to reclaim it by his individual means. I was informed, the owner is a very intelligent man, of much wealth and first-rate possessions, but has been unfortunate in his tenants, who have not, for some reason or other, done justice to the farm in question. Now, it struck me, that nothing would give me more pleasure than to be the owner of such property with such resources at hand, for I have ever had a "penchant" to make two blades of grass grow where but one grew before; and here, I should not despair of finding employment to my heart's content, although it will be admitted that it would be a work of time to cause such a desert to "blossom like the rose." On my ride to the city, therefore, I amused myself by chalking out a plan for both owner and tenant, which, *upon paper*, looks well, and by no means of difficult accomplishment; and if, on detail, you should consider there is aught in it that would be amusing or instructive to either, perhaps you would give it a place in some future number of the Cabinet; at all events, it might contain hints that may be useful to some one, either in the way of *reproof or comfort*.

In the first place, then, were I the owner of this estate — "very intelligent, of much wealth and first-rate possessions," — I would seek out some intelligent man, having neither of the additional requisites; put him upon the farm, and become to him another Duke of Buckingham — see page 79 of the Cabinet, vol. 5 — my motto being "live and let live," sensible, that the more a tenant improves his land, the more he must benefit himself and me. I would say, "Every assistance I will render you, should I find you deserving, relying on your honour and friendship to do me justice whenever that is in your power; I live in the hope of seeing you successful, and long may you live to enjoy and increase the value of the property." I would then give him the farm at an easy rent; assist him to stock it, holding it as security for the investment at common interest; give him the right hand of friendship, and the sole management of the estate.

And were I the tenant of such a farm and under such a landlord, I would improve it, or I would know the reason why. Perhaps I should not, in the first year, plough twenty acres—possibly not half that quantity—but I would not suffer a weed to live and perfect its seed upon any part of the farm: I would get my landlord to purchase me a few young cattle and sheep, with which to stock the greater part of the farm; and I would then seek for some low part of the land, from whence I could raise earth for the purpose of top-dressing the permanent pasture, eventually to the depth of perhaps some inches; this, with the continual mowing of the weeds, would alone work wonders, for it is a fact, that as soon as land is able to support useful plants, and they have a fair chance to grow, the weeds will give place. I should never contemplate to keep under the plough more of such land, than sufficient to produce roots and straw for winter use, and bedding for the cattle, satisfied, that at least two-thirds of the farm should remain in permanent pasture; and thus, in a few years, I would put a new face upon things. For although the doctrine is not denied, that the best means of renovating old worn-out pasture is to plough and cultivate and again lay to grass, by sowing the best seeds on a clean, well-pulverized and well-cultivated soil; admitting also, that "without *grass*, severely-cropped land cannot be restored to full fertility, and without *cropping*, grass cannot be made to continue at the maximum point of utility and verdure," yet this must be done by degrees and by small portions at a time, still reserving the proportion of two-thirds of such land in pasture; careful not to undertake too much, and remembering always, that what is expended in top-dressing, will be found, whenever the system of renovation by breaking up, is resorted to.

But I must continue to have the farm at a specific *rent*, and not upon *shares*—a system that is ruinous to both landlord and tenant, nine times out of ten; productive of distrust on the one side and dishonesty on the other. The rent of the farm abovementioned cannot be great in its present state, and as it is the tenant who must render it productive, he ought to be the gainer, after paying a fair rent and interest for the use of money expended in the purchase of stock, &c., which stock should be held by the landlord, as security for capital so advanced. No one, having capital of his own, would consent to ex-

pend it in reclaiming lands that are so impoverished and unproductive, while other lands, rich and profitable, are so easily procurable; but there are persons who have intelligence and industry, which, in such a case, are a rich exchange for capital, to a very considerable extent.

After awhile, the manure of the cattle would be increased, but that must not be laid upon the land in its pure unmixed state; it should be *composted* by mixing it with the earth abovementioned, and with every other article to be obtained upon the farm suitable to the purpose; and after it has fermented together and received a perfect degree of pulverization, it might be spread abroad and brushed into the sward by means of a *bush harrow*, when it would bring forth "fruit a hundred fold." And this business of forming compost ought to be the chief employment of the man who would procure the means of living on land which does not now yield sufficient to keep body and soul together, either of *man or beast.*

Perhaps 50 acres of such land would be more profitable to a tenant than 200, and if there were four dwellings upon the estate, it would be desirable so to divide it; but any one taking the whole, must not at first expect to be able to give more than the fair rent of fifty acres; if he does, his ruin is sealed, and he had better at once take up his residence at the Palace on the banks of the Schuylkill, which he would be sure to occupy in the end, after expending his strength for "things that are nought." D.

Eastern Shore, Maryland.

For the Farmers' Cabinet.

Rotation of Crops.

Your correspondent R. W., who hails from Chester county, in an article on Subsoil Ploughing, in the last No. of the Cabinet, seems to speak lightly of the "undeviating course or rotation of crops believed in and practised by the old-school farmers of that county, viz., first a crop of corn, then oats, then wheat and grasses, with the application of what little manure *chanced* to be lodged in the barn-yard during the winter." Now, in the first place, I do not consider this by any means a fair description of the system of farming in Chester county; but leaving this matter out of view for the present, we may observe, that although this rotation of crops may not be the best for the advanced state of agriculture, or for the newly sprung-up demand for particular products, yet it is perfectly well known to those whose reminiscences extend back beyond "two-score years," that it has been immensely beneficial; and that to it and a liberal use of lime as a manure, are mainly owing the very rapid advances which the farmers of that county have made in wealth and agricultural improvement. It is these which have changed the products of her soil from briars and thorns — from fog-grass and broom-sedge, to clover and timothy, and a host of other valuable grasses and grains, and made her once impoverished fields to "blossom like the rose." A system, therefore, which has produced so much prosperity, cannot be *decidedly bad*, and ought not to be departed from, without good and substantial reasons. And I think observation and experience will warrant the assertion, that it is better calculated to permanently improve worn-out lands, and at the same time to keep them free from the usual pestiferous weeds, than any other, embracing no greater expenditure of labour and money, in proportion to the return of crops, that has yet been proposed. It ought also to be recollected, that a very large portion of our state is far, very far, behind the county of Chester, in agricultural improvement, and that if the same system of cropping which has unquestionably tended so much to her advancement, could, with the proper modifications, be generally introduced throughout its whole extent, incalculable advantage would be derived therefrom—more, in my humble opinion, than from all the patent gimcracks that have been invented, and all the new-fangled systems of farming that have been recommended, for the last twenty years.

The raising of grain, the rearing and fattening of different kinds of stock, with an occasional exchange of the latter employment for the operations of the Dairy, must always form the leading objects of the labours of the great bulk of our farmers, whatever variations from these may be found necessary in the confined neighbourhoods of large cities. That system or rotation of crops, therefore, which will enable the farmer to attain these objects in a profitable manner, with the least expense of labour or money, and at the same time keep his land free of weeds, and in an improving condition, would seem to be the only proper one to be recommended for general adoption.

If any one knows of a better than that, so long in use in Chester county, and which your correspondent seems to consider as antiquated and behind the age, let him fairly state it, and let it be as fairly tried, even though it have less than half-a-score of years of experience in its favour. After this, and before a choice is made, let the present (or old) system be critically examined, and its advantages and disadvantages maturely weighed, and then, if the new is found the best, let it be adopted.

In conclusion, I would only further remark,

that although not engaged at present as a practical farmer, yet I was educated as such, and for many years followed the business, in one of the best cultivated districts of Chester county. Since then, I have had many opportunities of observing the modes of farming in this and some of the adjoining states, and from these circumstances may be presumed to know something of the matter. My object is not to enter into a controversy, but by giving the results of my observation and reflection, to arouse farmers to an examination of the subject, and thus contribute something towards the advancement of an art which is the primal cause and true foundation of all our wealth. S. Lewis.

Pottsville, July 20th, 1841.

Importance of Manure.

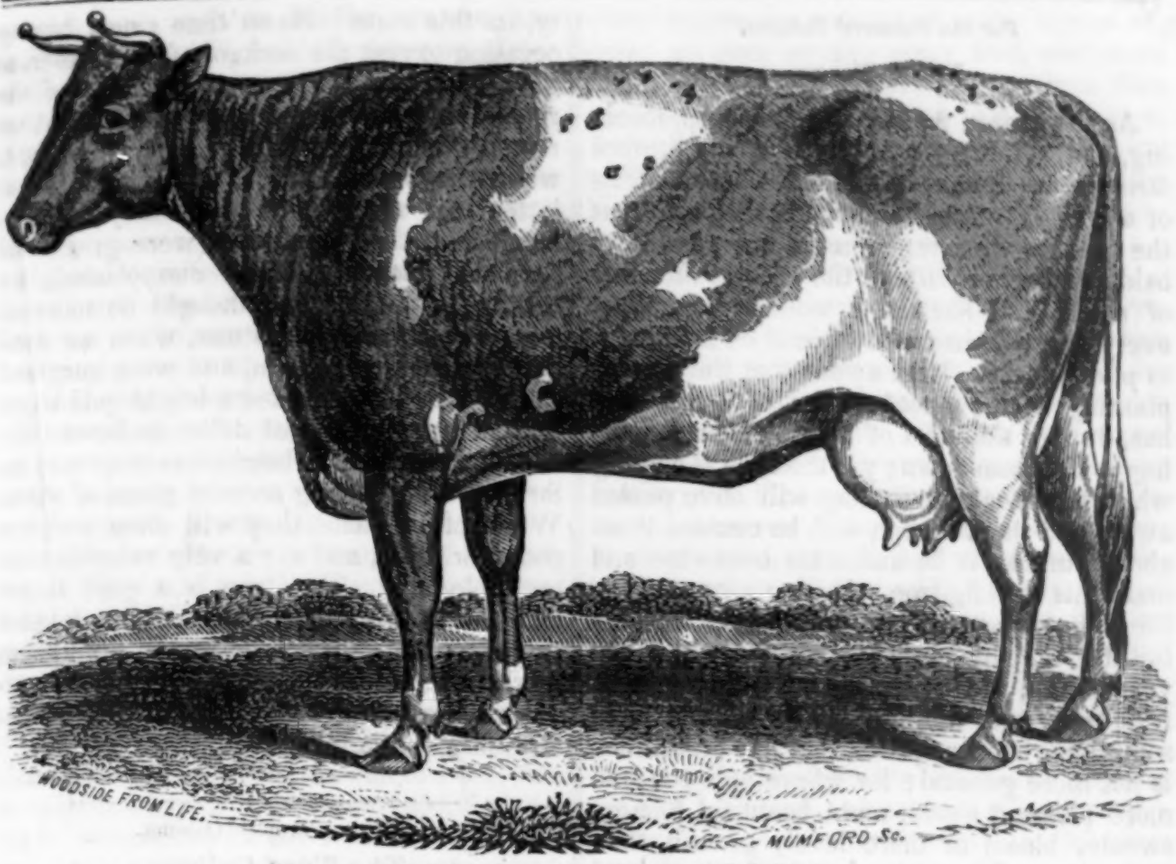
The importance of manure to the farmer is such, that his success in the production of the crops he cultivates will mainly depend on its quality, and the application of it to the crops he raises *as food for stock;* as those which are *consumed* on the farm are much more productive of an additional quantity of manure, than the crops of *grain*, a great part of which is carried off the land. As straw and green crops are the foundations of manure, the increase of these raw materials is of the greatest importance with a view to future crops; but when the stubble is left in the fields, we are deprived of at least one-fourth of the means of re-producing manure; showing the propriety of collecting all the straw which our crops produce, for the purpose of converting it into manure. The straw of the wheat-crop will double the weight of the grain produced; so that if all the straw be converted into manure, by part being consumed by animals, and the remainder as litter, it will keep up, and with good culture *increase* the productiveness of the soil.

We hold it as an axiom, that all the manure produced on the farm should be applied to the production of green food, such as turnips, beets, cabbages, potatoes, clover, &c., for by such application, a very large quantity of food can be obtained from a small quantity of land, when compared with the old system of applying all our manure for our marketable articles. The produce of food for stock ought to be our *first* object — that of corn for sale, the *second;* for if we secure the first, the second will follow. Attention to the accumulation of the dung-hill ought to be one of the first objects of the farmer. The dung of beasts fed on straw only, is of little value, when compared with the dung of those fed on roots; the dung from corn-fed beasts is better than either, but that from oil-cake is the most valuable of all. It has been calculated, that an acre of well-manured clover will support three 3 years old beasts for six months — from April to November, and an acre of roots, from the 1st of November to the 1st of May; the quantity of manure from these beasts, while thus fed in the house for twelve months, being thirty tons.

The *manufacture* of manure, or the art of preparing it for different qualities of soil, should be more attended to than it is—this is one of the most necessary branches of husbandry — not only the increasing its quantity and quality, but the *preparation* of it. Much earth should be used in all dunghills, as this becomes more valuable than the dung itself, by altering and adding to the staple of the soil on which it is applied. A compost for a light soil should be formed of cold manure, the earth partaking of clay or stiff loam; while that designed for strong tenacious soils, may be formed of the dung of horses, hogs, sheep, &c., well composted with light, sandy, porous earth, or road-scrapings. In the application of manure, the nature of the soil ought always to be considered; if the soil be strong and cold, long and fresh manure may be used to advantage, but this should never be used for light and porous soils. Peat, when mixed with fresh dung and permitted to ferment, is an excellent manure; while those composts into which bone-dust, soot, ashes, &c. enter, produce wonderful results on all grain and root crops. The production of turnips, beets, clover, &c. by a large proportion of the farm, and the consumption of these by stock on the premises, will produce a sufficient quantity of manure to keep the land in a productive state; and if proper attention be paid to this part of the business of the farm, a much greater quantity of grain will result from it, even when a less quantity of land is sown with grain, and a greater proportion to green crops. Morton.

A Horse-Rake, to collect leaves, &c., from the woods, has been invented by Mr. Lownes, and is described in the Southern Planter. It is formed by boring 8 two-inch holes through a locust or gum log, and putting teeth, made of seasoned locust, drawn to a point, and driven through from the top of the log. The teeth are two feet long, the log eight inches in diameter, and three feet and a half long; the shafts just long enough to balance the log, which falls back considerably, from the great lean the teeth are obliged to have, to collect the trash. With this rake, the inventor has collected fifteen cart-loads an hour, and calculates upon obtaining at the rate of fifteen hundred loads a year.

We have no sympathy with those who would desecrate and pare down the loveliness of earth to the grade of *mere utility.*



"QUEEN OF CHESTER."

The property of Algernon Sidney Roberts, Esq.

LIGHT red and white, calved the 27th May, 1836, got by J. Thurlow's full-blooded Durham bull; *dam* a red cow, from a Holstein and Devon, (owned by Thomas Rotch, Esq.) by A. Ashton's Durham bull; this bull was by Colonel Powell's full-blooded bull Clinton, and he by Col. Powell's Malcolm, from imported Belle—dam of Ashton's bull, Mr. Rotch's superior Holstein cow.

The dam and sire of Thurlow's bull were thorough-bred, of the stock of Newman Cash, Esq., near Leeds, England.

The "Queen of Chester," is five-eighths Durham and three-eighths Devon and Holstein, probably the most valuable cross that can be made for the milk-man and the grazier, in this country. This cow evinces in a remarkable degree, the advantage of improved blood. She is always in prime condition, even fit for the shambles, whilst the ordinary stock on the same kind of food are invariably lean and slab-sided during the milking season.

In 1839–40, having met with an injury which prevented her from bearing, she continued in milk for twenty months, and gave 20 quarts in one day, six months after calving.

Statement of the Milk and Butter from the "Queen of Chester," in one week.

1841.		Quarts.	Pints.
May 22,	Morning,	10	
"	Evening,	11	0½
23,	Morning,	10	
"	Evening,	12	
24,	Morning,	10	1½
"	Evening,	12	1
25,	Morning,	10	1
"	Evening,	13	
1841.		Quarts.	Pints.
May 26,	Morning,	10	
"	Evening,	12	½
27,	Morning,	10	½
"	Evening,	13	
28,	Morning,	10	
"	Evening,	12	
		157	1

Or, 22¼ quarts per day.

The cream from the above milk produced 13 lbs. of butter.

Remarks.—She was somewhat lame by the foot-ail, during this week, and gave several quarts per day less than a week or two previous. She ran, during the day, in a meadow where the pasture was of medium quality, and at night was confined in the barn-yard. A little dry Indian-meal and wheat-bran were given her this week.

She calved on the 24th of March last.

I have no doubt, that under more favourable circumstances, and milked three times a day, she would make 15 or 16 lbs. of butter in a week, and will next season test her productive qualities fully.

A. S. R.

For the Farmers' Cabinet.

Fruit Trees.

As the season for planting is fast approaching, and believing that many of my brother farmers are awake to the delicious comforts of a well-regulated home; satisfied also that the most costly arrangements are absolutely bald and barren without the accompaniments of shade and shelter, I would recommend every one who has a few yards of land only, to *plant a tree.* I am aware that the idea of planting a tree must be strange to him who has, during the most of his life, been labouring to cut them down; yet the time is coming when that reckless feeling will have passed away, and then, no one will be content to sit abroad unless it be under his own vine and under his own fig-tree. During a pretty long life, I have been much engaged in this delightful employment, but have, for the last years, felt a preference for the cultivation of fruit trees over those of the forest, and have sometimes been surprised that this preference is not more general; for where will you find more pleasant shade, more beautiful foliage, sweeter bloom or more lovely growth, than in the trees of the orchard or the fruit-garden? At no time are they less beautiful, either in the spring, summer or winter, while in the autumn the difference in their favour is palpable to all our senses.

The almost endless catalogue of fruits offered to our notice will surely entice us to do something the coming season in the way of a more general system of planting, and there is one variety which is deserving greater regard than is generally bestowed upon it—I mean the pear. I know it has been urged that this fruit is of less value than many others, as the time of its use is but short when compared with the apple, according to the observation, "The pear is in season only one day in the year, namely, on the day when it is plucked," but this is by no means the fact, for there are some of the varieties which keep well, and I have lately become acquainted with one that improves by being kept until Christmas or even later; it is known by the name *Columbian Virgalieu*, and is, I find, largely cultivated in the extensive nurseries of Messrs. Parsons & Co., Flushing, near New York, who have furnished the following account of a pear which is likely to become, through their instrumentality, extensively known and widely cultivated; in answer to inquiries from a person in an adjoining state, they write as follows:

"We have recently been introducing into our nursery a new variety of pear, decidedly superior to any hitherto cultivated. It is called the Columbian Virgalieu, and was originated by a farmer of Westchester county, in this state. Some time since, having occasion to visit the orchard of this farmer, so glowing a description was given us of the remarkable qualities of this variety, that we requested him to send us a basket of the fruit, when they arrived at maturity. About the latter part of the 10th month they came to hand, and, though mellow, were green and perfectly insipid. Much disappointed, we threw them aside, and thought no more of them until about Christmas, when we accidentally met with them, and were surprised to find they had assumed a bright gold tinge, with a spicy and most delicious flavour, exceedingly juicy and luscious,—in no way inferior to the glowing account given of them. When of full size, they will often weigh a pound or more, and are a very valuable winter table-pear. The tree is a good bearer and thrifty in its growth. We cultivated them last season extensively, and think them well worthy of being introduced into the garden of every farmer and lover of good fruit.

Flushing, 7th mo. 20, 1841."

John Dale.

For the Farmers' Cabinet.

The Tare Culture.

At a late meeting of the Philadelphia Agricultural Society, a member inquired if any one present could speak experimentally on the culture and value of the tare or vetch, which is in such very general use in England, where the summer-soiling system is adopted; remarking, that from all accounts the plant must be astonishingly productive as well as nutritious. Having myself employed it for that purpose very largely, and for many years, I would say, its productiveness has never yet been overstated, or its value overrated, as food for all kinds of cattle. Horses, milk cows, fatting beasts, sheep and hogs, will grow fat while feeding on it, and the older it grows the more valuable it becomes, as the seed when formed in the pod, is far superior to oats or any other grain for the purpose of cattle feed; the seeds are black, and the size of very small peas. The crop is used for soiling, by cutting while green and taking it to the stables; it is sometimes fed off by sheep, confining them on it by means of temporary fencing or hurdles; cattle are not liable to become hoven while feeding it in any stage of its growth; on good land it has been known to reach the height of three feet and even more, producing as much as 12 tons of green food per acre, which, when well dried, will yield 3 tons of the most valuable hay on the farm. The first sowing takes place as soon after harvest as possible in England, upon land designed for the wheat-crop the next autumn, with the *winter* variety of seed, which can easily be distinguished from the

summer tare, as it is smaller, rounder, and blacker; these will bear the severity of the winter; rye is often mixed, to enable the crop to stand up, when it attains a considerable height, but a sprinkling of wheat has been found best for this purpose, as it remains longer succulent in the summer. The crop from this sowing will be fit for cutting for soiling in May, and the stalks, if left in the ground, will afford a second growth for sheep-feed; but as the tare is a fallow crop, it is the best management to cut all off and plough the land deep as soon as the crop is removed, well working and cleaning it during the summer, preparatory to wheat-sowing, early in the autumn, after a dressing of well-prepared compost, if this has not been given to the tares—a far better arrangement for both crops. The next sowing is with the *summer* variety of the tare, as early in March as the season will admit, on land that has been ploughed preparatory in the autumn or winter; again in April another crop is sown, and, if necessary, two other sowings might take place, the last so late as the end of June, that so a succession of this most valuable crop might be secured for the whole of the summer, and until the end of September. Such crops produce immense quantities of manure, which is carried from the sheds and *composted* for dressing others; turnips, for instance, which may be sown on the land from which the first crop of tares has been carried, and fed off in time for wheat-sowing in the autumn. It must not be forgotten, that the richer the land, the greater will be the crop of tares, and none will pay so amply for manure; but when the crop is very heavy, there is less chance of obtaining good seed, and if that be the object, it is recommended to mow the first crop early for soiling, and permit the second growth to stand for seed, which is sometimes a precarious business, nothing being more uncertain; I have purchased seed at a guinea and a half a bushel, and sold the next year's produce obtained from it at six shillings a bushel! When the price of seed is moderate, the quantity sown is two bushels or two and a half per acre, but whatever the price may be, it will be repaid in the crop, if the land be in good heart. As much as 30 bushels of seed per acre has been obtained, but 15 bushels, and often half that, is more common. Under a heavy crop of tares, the land will be found perfectly clean and mellow, and will turn up like an ash-heap: and there is no question with me, that the crop may be raised with success in this country, if well cultivated on good land, rather stiff in its nature, and lying cool.

With regard to the value of the tare for soiling, it has been calculated that ten times the stock might be kept on them than on any other commonly cultivated crop; horses require no corn or any other food, and cows give more butter while feeding on them than on any other food whatever. Is it not strange, that no regular experiment on an extensive scale has yet been made on such an invaluable crop in this country? D.

National Agricultural Society.

Mr. Solon Robinson has proposed a Farmers' and Planters' Convention for the nation—I second the motion. When a lad, I desired to be a farmer from inclination, but now I am getting old, I am a farmer from necessity. My lands will eat me up, unless I can cultivate them; to sell and live upon the proceeds is now out of the question—all business is at a stand, and all human existence depends upon bread; stop the plough, and all civilization comes to an end. For the last five years I have felt confounded and overwhelmed with the consideration, that the very bone and sinew—the heart's-blood and life of the nation—the Farmers, have in Europe been hag-ridden for centuries, and in America for half a century, by persons who knew nothing of, and felt no interest in the main branch of national wealth. The *real estate* of the nation is its only solid wealth—this is subject to taxation, and is the only permanent support of government; it is folly to speak of commerce without it, for what profit can there be in commerce, to make great importations for a nation of paupers? And it is strange to me—next to the barbarous shackles of despotism—the imprisonment of an unfortunate debtor—the sacrifice of *real estate* under execution, without any regard to its value! This should never be; on this subject my mind has never changed, after more than fifty years' serious reflection.

So we go for a Convention of American Farmers and Planters on rational principles; there is a necessity for it, and volumes could not contain half the reasons that might be urged; we have a constitution of the United States to protect every thing but the vital interest of the nation, Agriculture; for touch this and urge it as of national importance before Congress, and we are told, it is *unconstitutional!* With this view, therefore, I consider it high time that every farmer and planter should be awake to his duty and interest, and urge on with all diligence, the meeting of a Convention of Farmers and Planters, according to the plan proposed by the respectable and highly intelligent individual who has the honour of moving first in the great cause.—*West. Far. and Gard.*

If twenty bushels an acre be considered a remunerating crop, all that the product falls short of this must be a *loss.*

For the Farmers' Cabinet.

Gardening.

Mr. Editor,—My garden at the present time presents an admirable lecture on horticulture. Although the season has hitherto been propitious, to a degree not often experienced, my crops are uniformly short and unhealthy; and with more than an usual attention to cleaning and dressing, its appearance is mean and disagreeable, and all this discomfort and unthriftiness arises from the single circumstance of working it in the spring while the land was wet! Every one knows that the season for gardening opened wet and cold, but as I always love to have things early, I thought I could not wait for better weather, and accordingly began dressing my beds with a good coat of rotten manure, and turned it in while the land was wet, and cold, and heavy, thinking it better to be early in my planting than to wait—but how far have I been out in my reckoning! My parsneps and carrots never attempted to make their appearance at all, although the land was twice sown; my peas, which always before grew tall and yielded abundantly, are not more than half the height of the sticks, with pods short and but half filled, while my onions are not the fourth of a crop; my cabbages are blue and stunted, and all the other crops are disgracefully poor and ragged, and this, in consequence of working the land while it was *wet, and cold, and heavy.* It is my intention the ensuing autumn to try the plan adopted by a friend who resides a short distance from me, and is sure to obtain first-rate crops in his garden—*by good luck*, as I have always thought, but he says it is because he always trenches up the land as soon as the crops are removed in the autumn, laying it dry for the winter and digging in the manure at that time instead of in the spring, so that on turning the land for planting at that season, the dung is brought up to the surface, perfectly rotted and *sweetened* as he terms it; when it forms a surface-dressing, which he assures me is the cause of his uniform success: and, indeed, I have often observed that his crops do not suffer like mine for want of rain, his land always lying light and open on the surface, which he is convinced is occasioned by the top-dressing formed by the dung. And another thing I have observed, he never uses the rake while digging for planting his crops, his land turning up mellow and sufficiently pulverized without it, and this he says is owing to the dung, which is thus brought to the surface, after lying all winter to meliorate that part of the soil which is then turned up to form the seed-bed of the crops. Now, there is reason in all this, and I begin to wonder that the thing did not occur to me before, and has never yet got into practice. I should add, he uses long dung for the purpose of digging in, which he says operates in a two-fold way, first *mechanically*, by keeping the land light and open, permitting the winter rain to pass off into the subsoil; and second, *chemically*, by giving out its "pabulum" or food of plants in the spring, when brought into contact with them at the surface, just at the time it is required, and in the proper state of decomposition to be taken up by them in *solution;* the only way, he is convinced, in which it can enter into their circulation. Now there appears so much good sense in what he says, that I suspect I was wrong in attributing his uniform success in gardening to good luck; and on my last visit to him, I was convinced of the superiority of his management, by finding that I could half bury my shoe in the fine surface-mould of his garden-beds, while mine lies hard and tight as a brick;—there must be some good reason for this difference, his land being precisely of the same nature as my own. It is also a fact, that his crops are by no means so liable to blight as mine, nor is he troubled as I am with insects of all shapes and colours and sizes; and this, too, he attributes to the mode which he has adopted, saying, he is never afraid of blight, if he can get his crops strong and healthy. He is much pleased with the communication signed R. W. in the last No. p. 274, and intends to subsoil his garden the present autumn, calculating great benefit to arise from the washings of the long dung penetrating into the loosened subsoil during the rains of winter, and declaring it to be his opinion that the system will become general, both in the garden and in the field; and in this opinion he is joined by many.

Your Subscriber.

Del. Co., June 12.

For the Farmers' Cabinet.

Destruction of the Rose Bug.

It is said, the destruction of the rose bug has been accomplished by Mr. Haggerston, gardener to Mr. Cushing, of Massachusetts, for which a premium of one hundred dollars had been offered by the Horticultural Society. The application consists of a solution of soap made from whale oil, in water, which, when sprinkled over the plants infested with the bugs, effectually destroys them. Now, would not the same application be as effectual in the destruction of bugs of every other description, particularly those which prey upon the vines of the squash, melon, &c.? I see no reason why it should not, for it must operate on all, one would suppose, in exactly the same way—"but in what way does it operate?" might be asked, and this is a question which I have not yet heard answered.

Now, as I believe, according to the theory of Vir and others, that these animals are merely the *effect* and not the *cause* of the disease of the plant—*that* arising from the putricity of its juices upon which they feed—that all putrid matter is highly charged with oxygen, oxygen being the basis of acidity; the application of a strong solution of soap must have the effect, by means of its alkaline properties, of neutralizing this acid and purifying the juice of the plant, rendering it no longer capable of sustaining the lives of creatures destined by the Almighty to prey only on corruption; they therefore die, properly speaking, of starvation. If this theory be correct, it is probable that a solution of soap and water will be found as effectual in the *prevention* of disease in all kinds of plants as in their *cure*, and its application might be expected to become general, in the garden and green-house as well as in the field, no injury being to be apprehended from its glutinous quality, as it is so readily miscible in water. And to this neutralizing property is no doubt attributable the benefit that has resulted from dressing peach-trees affected with the yellows, with soap-suds. A friend writes, he has tried the effect of soft soap on the rigid bark of some of his apple-trees, and the result is surprising; the trunks of his trees are become as smooth as glass, and the branches seem possessed with new vigour. I presume that whale oil may be rendered saponaceous by an addition of barilla or potash at a most trifling expense, but would not recommend the refuse oil for this purpose, as its filth and impurities may be found injurious to some of the more delicate plants. O.

For the Farmers' Cabinet.

The Farmer's Diary.

Conversing with a friend in Delaware on the very general rust which has befallen the wheat-crop in that part of the country the present season, he assured me the evil had been the work of a few hours only; the thick, moist and hot atmosphere of a certain Wednesday in June, having been the cause of the prostration of their hopes, which had, until then, been bright and most promising. On my return home, I turned to my diary, and read the following entries, which to my mind fully corroborate the views which he had taken, and go to prove the truth of the theory, that rust is occasioned by atmospherical influence.

Tuesday, 22d June. Therm. 72°; considerable rain, close and warm; afternoon excessively close and hot.

Wednesday, 23d June. Therm. 83°; close, cloudy, moist and hot; a trying time for the wheat. Look out for blight, mildew and rust; rain about noon, excessively sultry.

Thursday, 24th June. Therm. 93° at noon, hot and clear, the reverse of yesterday, by no means so oppressive. It is hoped the wheat will recover from the effects of yesterday.

Friday, 25th June. Therm. 82°; a close, thick, hot day; at noon, heavy rain until 5 o'clock, with therm. 77°, a dread time for the wheat.

Saturday, 26th June. Therm. 77°; close, damp and hot in morning; at noon clear.

Is it not strange, that every one at all concerned in the state of the weather does not keep a diary? I procured mine from the recommendation at page 190 of the Cabinet for January, and it is a perpetual source of interest and pleasure to look back to its pages and read those "prophecies of the past," as they have been called, and benefit by observation and reflection on things gone by: by them I have been convinced that there is such a thing as *weather-wisdom*, and find myself becoming quite an adept in the science. H.

For the Farmers' Cabinet.

Lime, an Anti-Septic.

In corroboration of the theory contained in an article in the Cabinet, page 314, under the caption "Lime a Septic or Anti-Septic," I beg to copy the following note from Mr. Samuel Parkes's examination before a committee of the British House of Commons, as published in the Philosophical Magazine for September, 1808. It is there stated—

"On the 4th of August, 1798, Mr. Cruikshank made the following experiment: he dissolved two separate ounces of sugar, each in five ounces of water in separate vessels, and added a two drachm measure of yeast to each. To the one, he afterwards added a little fresh lime in powder, and placed both vessels in a favourable situation for fermentation. In twelve hours, one mixture began to ferment, but that which contained the lime showed no sign of fermentation, although it was continued in a favourable situation during a period of twenty-four days: a similar experiment was made with potash, with the same result."

Would it not therefore appear that "no fermentation can take place, if the alkaline principle be in excess? and can chemical decomposition take place without fermentation?" K.

Four pounds of beef lose one pound by boiling; one pound five ounces by roasting, and one pound three ounces by baking. Four pounds of mutton lose fourteen ounces by boiling; one pound six ounces by roasting, and one pound four ounces by baking.

For the Farmers' Cabinet.

Beet and Turnip Culture.

I have just read an article in the last No. of the "Cabinet," by Wm. Penn Kintzer, in which he says: "I myself have tried roots, and would not condemn them wholly; but I contend, the acre of ground, forced by manure and culture, producing a good crop of beets, will, under like circumstances, produce an equal, if not greater amount of solid nutriment in the shape of corn." And he closes with observing: "Aware of the partiality of beet-culture for stock, I shall look out for a censorial notice from some ready pen. Nevertheless, I shall not be easily driven from my ground."

Perhaps there are few who take greater pleasure than I do in the practical improvement of our general system of agriculture in its various branches, which consequently cover a wide range, including, as intimately connected therewith, the feeding of stock. I, too, have raised and fed roots, for several years, and am decidedly of opinion that they are valuable for stock-feeding; but, on the other hand, I am equally decided in opinion, founded upon my own experience as well as observation, that the position taken above, is *substantially correct*,—and that for the purpose of stall-feeding stock, in most cases it is much more profitable, in our country, soil and climate, to raise Indian-corn for that purpose, than beets or turnips, however different it may be in England, where Indian-corn will not as profitably mature; where, also, beets and turnips grow much more luxuriantly than they do with us, and where the extra labour requisite in their culture is not so expensive as it is with us. Perhaps some may reply, they do not require great extra labour. Then let such make the comparison with the culture of corn. It is well known that many farmers cultivate 25 and some 50 acres of corn annually. Now, let the same quantity of land be properly cultivated with beets and turnips, instead of corn, and then judge of the comparative labour; and who would not flinch from, say 50 acres of roots, especially if he have his other farming operations going on meanwhile? I venture to say, he would not like to repeat the culture of 50 acres the next year. I am, however, of opinion, that in high stall-feeding with corn-meal, it is advantageous to give daily a small quantity of roots—beets, turnips or potatoes—on account of their cooling properties, enabling the animal to extract more thoroughly the nutritive matter of the grain in its passage through it. It is true, there may be instances, where a mechanic, or other person who keeps one or two cows, and has but a small lot of good land; and who, as a relaxation from his trade in his shop—and for advantage to his health, would spend an hour or so occasionally in his lot—with such, it may perhaps answer to cultivate roots. But, even then, I think a little grain with them an economical addition, even if it has to be procured at the expense of selling a part of the roots.

I have often thought that one great cause of the prejudice to what is sometimes called *book-farming*, arises from the unsuccessful attempts of those who have too implicitly followed plans and statements which have succeeded well in other countries, soils and climates; not sufficiently heeding, that what is well adapted to one, frequently will not profitably answer the agriculturist in another. The true interest of the farmer is, to cultivate such crops as will best remunerate him, taking into consideration the nature and state of the soil, the climate, and his particular locality (which last has frequently much to do with it) and his means of manuring it according to its wants—always bearing in mind the steady progressive improvement of his land.

But I have digressed. My object in taking up my pen was, to support the position of the superiority of corn to beets and turnips for feeding. As to the exhaustion of the land in the one case, and the melioration thereof in the other, with fair and just treatment, I do not believe in it to the extent that some appear to do.

And now, before I close, let me add, if all the corn-stalks are foddered and littered in a barn-yard or yards of sufficient dimensions and properly constructed (concave) and well trodden by stock, together with all coarse vegetable matter that can reasonably be obtained, they will contribute largely to the mass of barn-yard manure (the farmer's bank, sure and safe) for the next summer's crop of *corn*. A pen of hogs, having a suitable yard to run in, sufficiently concave and wet in the centre, and plentifully supplied with coarse vegetable matter, will make, what would appear to those who have not tried it, an incredible quantity of excellent manure, which I greatly prefer for the melioration of my land, to a crop of roots.

W.

Burlington Co., N. J.

For the Farmers' Cabinet.

The White Carrot.

Mr. Editor,—As many of your subscribers must have at this time crops of the white carrot growing on their land, I should feel obliged if they would inform us of their progress, and whether they are likely to fulfil the promise which was made at the time of sowing, namely, that they should supersede all other crops of roots for the use of stock

during winter. I was not conveniently situated for the experiment the present year, and am now desirous of hearing from those who have entered upon their cultivation, that I may be prepared the next spring, by subsoiling a portion of land in the autumn and burying long manure, according to a plan proposed of late, and which I conceive would be very likely to insure large crops. I find there are two species of the white carrot, the most productive being that which makes a large portion of its root above ground: it has been lately cultivated in the Island of Jersey —that country so famous for the last century for parsneps as cattle-feed—and from accounts published by Colonel Le Couteur, to whom the world is indebted for a most valuable treatise on wheat, and who is a host in himself, the success attending it is complete; he says, "In Jersey, the prize crop of parsneps this year afforded 24 tons to the acre, while the white carrot, a prize crop also, which I have cultivated experimentally, gave me nearly 38 tons to the acre; an enormous crop, which, if equal to the parsnep for butter, will of course supersede it, as my parsnep crop in the same field, and cultivated alike, only produced 16½ tons an acre, which, nevertheless, was a very fair crop." I remember seeing roots of the white carrot the last winter which weighed more than two pounds each, and hope to find some well grown at the exhibition of the Philadelphia Agricultural Society, on the 29th and 30th September next—and where, too, I trust we shall meet with many agricultural friends from distant parts of the country: I certainly anticipate much pleasure and happiness *of the right sort* on that occasion of mutual reciprocity. H.

Chester County.

For the Farmers' Cabinet.

Top-Dressing.

On a late visit to the delightful gardens of Mr. Buist, in 12th street below Pine, I saw the principle of top-dressing carried out on a plan that I had never before witnessed—several large beds of dwarf roses are covered to the depth of two inches with perfectly rotted dung, in which it does not seem that a single weed has ever made its appearance. The plants exhibit a high degree of health and vigour, and judging from this instance, I am prepared to believe that the system would be as applicable to the farm as to the garden. I have therefore turned to the papers on this subject, which have of late appeared in the Cabinet, and re-perused them with increased interest. Indeed the theory is very plausible, as we can readily conceive, that if this body of manure had been *buried at the roots* of these rose-trees, the effects would indeed have been deleterious.

In Mr. Buist's garden, I saw also the Bokhara clover in bloom: its flowers are diminutive, white, pea-blossom shaped, and hung on spikes at the top of the plant: judging from appearance, it will be long before a quantity of seed sufficient to sow much land will be procured, but in all probability the cultivation might be extended by the root, after the method practised with lucerne, by cutting off the crown of the plant an inch or so below the surface, and dividing it by slips, which, if planted separately and watered, will readily take root and produce abundantly, the root which remains in the ground forming another head and throwing up other shoots in great profusion; and thus the cultivation might be extended very expeditiously. The walks in these very pleasant and extensive gardens are covered with exhausted tan from the pits, and are thus rendered dry and clean even in the worst weather. This plan should be adopted generally, as it also prevents the growth of weeds, saving one half the labour of cleaning. C.

On Sheltering Sheep.

I wish to see the whole race of *hardy* sheep extirpated from the soil. Instead of a race, hardy, wild, starved, comfortless, diseased and thinly clad with the shaggy, coarse, open coat of the goat or the wolf, let us substitute upon our mountains and plains a well-fed, *cultivated* sheep, with a comfortable and sufficient inside lining of nourishing food, and the external defence from the cold, of a thick, close and valuable fleece; his health and strength and *real* hardiness supported by shelter, whenever nature may point out to him the need of it. Let us hear no more the distressing and disgraceful accounts of the numbers of sheep perishing with cold, but of the numbers preserved, and of the merit of flock-masters in their plans of winter protection. While the notions of hardiness prevail, and of sheep that will starve within an inch of their lives, there can be but little hope of the improvement of which they are susceptible, and to which this country ought to aspire; there are none that ought to be exposed without some kind of shelter to the rigours of the winter and early spring, or without a sufficiency of food to support them in a thriving state; these things are necessary, if it be intended to force the growth of their fleece to its utmost weight, and to preserve the quality, in its highest degree of condition and fineness. It matters not how much an animal eats, provided it pays for it.—*Lawrence.*

The individual who lives a life of temperance and virtue, and partakes daily of sufficient active exercise, requires no opiate to lull him to repose.

For the Farmers' Cabinet.

Agricultural Exhibition.

Mr. Editor,—I am glad to see it announced in your last number, that the Philadelphia Agricultural Society will hold their annual exhibition at the Rising Sun, on the 29th and 30th of September next. Since the last meeting of the Society, I have not ceased to grieve for the disappointment which was then felt on account of the total failure of the ploughing match! and is it a fact that Pennsylvania is so far behind the Eastern States, that it is not possible to get up a ploughing match in this part of the country? True, it is said the land which had been selected was unsuited to the purpose, and that those who came to the trial were unprepared, as it was not understood that each should bring the necessary apparatus; but this is not all—there was not a plough upon the ground that was *suited to the purpose* of turning whole land in a dry season. Is it asked, in what were the ploughs defective? I answer, they were too wide in the share, or wing, for ploughing whole land—they cut too much: the points were too wide, and their beams too short. If one of them had been fitted up with a narrow, sharp share—say about 8 or 9 inches wide, with the point narrow and perfectly sharp, and a foot of chain attached to the beam to prevent its being lifted out of the work by the draught of the *horses*—which ought to be prevented from going steam-pace, as is too much the custom—she would have entered the land, never fear; and in the hands of a good workman would have been considered worthy a premium.

A great deal has been said in the papers about a plough that was sent from a maker in Market street, Philadelphia, to compete with the English ploughs at the agricultural exhibition at Cambridge, and they have gone so far as to declare that it received the encomiums of the Society; but the fact is, it was never brought into competition with the English ploughs at all, for it was found perfectly impotent—it was tried on an adjoining field, where it drew a *good deal of notice*, but it was quite inefficient until it had been furnished with a coulter; and all that was ever said in its favour was, "after that, it did better;" even the "noble President" could make nothing of it.

But I fear it is a fact, that "the worst part of our agricultural operations in this part of the country is our ploughing," and I guess it will be long before we are able to cope with some of our distant friends in this particular; nevertheless, that is no reason why the attempt should not be made and the question decided, and I sincerely hope the committee of arrangement will determine on making another exhibition of the skill of our ploughmen, who will now be able to come better prepared to wipe away the stigma which rests upon them since the abortive attempt of the past year: is there no such machine in this part of the country as a dynamometer?

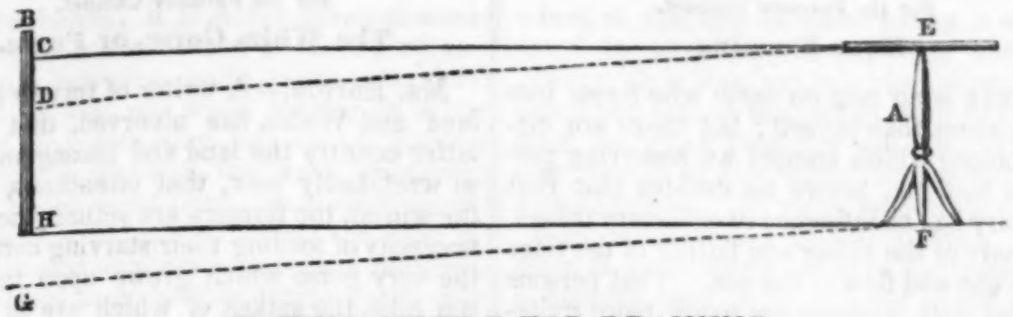
But let the proprietors and manufacturers of the different ploughs act liberally, and offer, as a premium, the *plough* which is declared to be the winner, as is done in Europe: they could well afford to do so, for the *eclat* will be worth to them many times the value of the plough in the way of advertisement. Now let our young ploughmen look out and do their best; to them we old folks look for improvement. But if the weather be hot and dry, and the land a hard lay, they will do little with ploughs such as those which were exhibited the last year, and no disparagement either to ploughs or ploughmen—in that case, let them narrow the width of their shares and points, and lengthen the beam if necessary, and my word for it they will go. In my opinion, the best ploughs in the world are the American; they only need to be fitted for the work they are required to perform.

I have just seen an account of a ploughing match against time for a bet of $100, between two farmers of Lincolnshire, England, on the farm of Mr. C. Popplewell, of Canwick, who undertook to find a man who should with one pair of horses and a single-furrowed plough, turn up two acres of fallow land within eight hours, to the satisfaction of two impartial judges. The plough was started at six in the morning, and the two acres were completed before one in the afternoon, being within seven hours, to the perfect satisfaction of the judges. The furrows averaged a depth of seven inches, and the share measured *only six and a half inches broad in the wing*. The ploughman's name was William Prescott. I repeat, our ploughs are too wide in the wing of the share—they cut too much.

An Old Ploughman on the Shelf.

Schuylkill County.

We are authorized to say, the Society have it in contemplation to institute a second exhibition or meeting in the Spring, to be held at some convenient place on the western side of the Schuylkill, when and where they consider it probable that more attention would be paid to a trial of ploughs than is likely to be rendered at the general exhibition in the autumn; the land, too, might be expected to be in a more favourable condition for the trial, which if got up on a grand scale, would add much to the interest of the meeting. They would strongly recommend to the notice of the manufacturers of ploughs, the European custom mentioned above, of presenting to the winner a new plough of that description which gains the premium; a cheap mode, they consider, of advertising and bringing into notice *the maker of the best plough*.—Ed.



TAKING LEVELS FOR DRAINING.

A, the spirit level; B, a staff erected at the end of the intended drain; C, the mark of the *real* level; D, another mark as many inches below C, as it is to have fall in the drain. If the level be lowered, so that the point of intersection, instead of being at C, be at D, the line formed by the level will be represented by the dotted line D E. The line H F, represents the surface of the land.

Now, if a staff the length of D H, with the additional depth of the drain at F added to it, be removed to any situation between H and F, it will give the true slope it ought to have at that particular point; and the drain, with its regular fall, is represented by the dotted line G F.

Profits of Farming.

Much discussion and conversation have been had upon this subject. We do not mean to enter fully or much at large upon a subject which requires to be examined in various aspects and relations, in order that an enlightened and well-founded judgment may be made up; and especially in order that we may not lead to any false inferences of its unprofitableness, nor encourage any fallacious expectations as to any advantages,—we mean *pecuniary* advantages,—to be derived from it. The erroneous opinions and calculations which have been formed in this matter, have led to most painful results, to serious losses, and to bitter and vexatious disappointments. We know a gentleman who tried farming on an extensive and experimental scale, whose authority is often quoted as ascertaining that "in agriculture, two and two do not always make four." We understand it to be implied in this calculation, respecting the profitable results of agriculture, or a fair return for the expenditure of labour and the investment of capital, as not so likely to be verified as in other business pursuits of life. We do not admit the axiom in any fair sense. We do not believe that it does justice to agriculture; and no small experience, and some observation satisfy us, that circumstances being equal, farming would furnish as fair a compensation for labour, and as ample a dividend upon the capital invested, as the common trades which men engage in, and even the pursuit of mercantile and commercial life. Of course we except all extraordinary cases of good fortune, and all matters of gambling and speculation.

The returns of most crops strike one sometimes with astonishment, and would, if taken as a test, lead to most delusive expectations. A grain of seed sometimes returns one hundred fold; and this being sown a second year, would perhaps give ten thousand fold, and so on in geometrical ratio. Twenty bushels of potatoes planted, will frequently yield four hundred bushels, that is twenty for one. A bushel of wheat sown, often returns thirty bushels. A peck of Indian-corn planted, will often produce sixty bushels, that is two hundred and forty for one. A pound of carrot-seed or of ruta baga, which costs a dollar, will produce six or nine hundred bushels of roots worth one hundred dollars. The proceeds in this case seem enormous, and yet they are constantly realized, and often, it must be admitted, at a comparatively small expense. But no confident conclusions of the profits of farming are to be drawn from such results as these. So many circumstances of abatement enter into the cost, that if these are the only elements given in the case, the solution of the problem would give the most egregiously erroneous and deceptive results.

We are not to look to agriculture for any extraordinary or sudden gains, as, for example, like drawing the capital prize in a lottery where there are two blanks to a prize; like some successful East India voyage, where the sale of the cargo yields a net profit of one hundred per cent.; or like some sudden rise in the stocks, or some monopolized article of produce, where a shrewd calculation draws its thousands or twenty thousands, into our pockets. But that skill, experience, assiduity, and industry will, in agriculture, yield a fair, and, to a reasonable mind, an ample compensation, there are too many and reiterated proofs to admit even of a doubt.—*H. Colman.*

For the Farmers' Cabinet.

Moon-Farming.

There is no man on earth who farms less in the moon than myself; but there are circumstances which compel an observing person to hesitate, before he decides that that luminary has no influence in sublunary things, save only in the rising and falling of the tides —the ebb and flow of the sea. That persons afflicted with madness are much more irritable and ferocious at the new and full moon than at other times, has long been admitted by those best able to ascertain the fact, and a residence for some years in the neighbourhood of a house of confinement for such unfortunates, has afforded me ample proof of the truth of the assertion — hence the term *lunatics*, when applied to persons so afflicted. Nor is it easy to conceive that such a general opinion could have been formed without some foundation arising from general observation, that the moon has influence on other *times* and *tides* of the world — but on this I lay no stress, farther than to introduce two instances which have been mentioned, and which seem worthy the examination and reflection of practical men, who alone have it in their power to put them to the test of experiment.

1st. In the Island of Guernsey, from whence such numbers of cows are sent to other countries for the use of the dairy, and where a heifer-calf is worth about ten times the price of a male, the desire of the breeders is to obtain as many of the latter as possible; and to effect this, it is, in their opinion, only necessary to put the cow to the bull during the waning of the moon; this has been practised for ages, and is implicitly relied upon by every inhabitant in the island. And it is an universally-admitted fact, that by very far a greater proportion of female than of male calves are thus produced—probably as many as six or eight for one; nor is this peculiarity confined to the Island of Guernsey; for in the whole of the channel islands, Guernsey, Jersey, Alderney, and Sark, the same *cause* produces the same *effect*.

2d. A practical farmer, a German, asserts, after fifteen years' close observation, that the crops of wheat which do not ripen within two days of the full of the harvest-moon, will be affected with rust; and he points particularly to the state of the crops of this grain the present year, in proof of his assertion. And is it not a fact—whether through the influence of the moon or not — that the crops late in ripening have proved peculiarly obnoxious to this disease the present season? Now the only end I have in view is, to set farmers "a-thinking,"—it matters not what is *said*, it is the *trial which makes mention*. Z.

For the Farmers' Cabinet.

The Whin, Gorse, or Furze.

Mr. Editor,—A writer of travels in England and Wales, has observed, that in the latter country the land and management are so wretchedly poor, that oftentimes, during the winter, the farmers are actually under the necessity of feeding their starving cattle with the very gorse which grows upon their barren hills, the spikes of which are as long as the finger, and sharp as daggers; expressing his wonder that it is not the cause of the death of hundreds of their miserable creatures!

Now, who could, from this account, conceive, that the gorse in that country is by far the most valuable of all their crops; that it is preserved with the greatest care, and reserved until a time of hard labour, and made to bring the highest price of any crop in the market! a field of gorse renting for much more than their most productive wheat-lands.

On reading the above account of the travelling gentleman to a friend who resided in that part of the country for several years, he was quite amused with the error into which he had fallen, remarking, that nothing could possibly be more opposite to the truth. He informed me, that the gorse or furze on many of the large estates in that region, is cultivated and protected with great care, as a reserve for the horses belonging to the collieries and the canal in the Tawey valley leading to Swansea, and other adjoining parts, at that season of the year when the grass of the meadows had been all expended, and the labour of the animals was the greatest; it was then given to them unaccompanied with the usual allowance of corn, it being, alone, quite equal to hay or grass and corn united. The seed is sown on well-prepared land, when it springs up and takes possession of the whole surface, not permitting a plant of any other kind to show itself, and so thick that a rabbit can scarcely find its way through it. At the end of two years, the crop has attained the height of about three feet, with stems as large as the finger; it is then cut quite close to the ground, with short scythes, bound into bundles, and taken to a small mill erected for the purpose, where it is passed between rollers, by which the spikes and stems are so completely crushed, that the horses desire nothing better than a manger-full of these "daggers" three times a day, the juice which exudes being quite clammy, and of a honey-sweetness, and fermenting the instant it leaves the rollers. The gorse-grounds are divided into two portions, one of which is cut every year, the crop being then two years old at the time of cutting. In some cases, this food is found too heating and invigorating

even for horses; it is never given to cows, being by far too hot a food for them; all animals will, however, leave every other kind of food for this, and while feeding on it, the coats of the horses shine like velvet. During the roughest weather, the most protracted winter, the severest frosts, the deepest snows, and under a deluge of water, the crop of gorse remains uninjured—a certain resource, and obtained at no earthly expense, save only the labour of cutting: of four times the value of a crop of grain, and bringing a rental of at least that proportion above the best wheat-land in the country—so much for travellers' stories! Z.

For the Farmers' Cabinet.

Blight—Mildew.

Mr. Editor,—I am particularly pleased with the review of the interesting papers which have of late appeared in the "Cabinet," on this all-important subject, by the very intelligent editor of the Farmers' Monthly Visiter; more particularly with the theory of the Hon. Samuel Hatch, which is there recorded, and which I must ask leave to copy for insertion in the Cabinet. From the views there taken, and the way in which they are expressed, it is easy to believe that Mr. Hatch "has been in the habit of doing every thing well."

He says, "blight, or mildew takes place generally at a time when days are hot and nights are cold; the day heat throws up an undue proportion of sap into the stalk, and the close burden of stalks shields the surface of the ground, so that it continues to force up the sap through the night, while the chill air strikes with full force upon the stalk above: in this state of the atmosphere, the stalk bursts just below one or more of the joints, and at once arrests the further growth of the grain." He is of opinion that "there is no remedy for blight when the grain has arrived at a certain point, and when the weather favours the process; but rye and wheat are more apt to escape when sown early; winter rye before the first of September, and indeed the earlier both winter and spring grain of all kinds is sown the more likely it will be to escape blight; a change of seed should take place every three or four years."

Mr. Hatch has succeeded, by a simple process, every year to make the flour from his rye but little inferior to that of wheat; he invariably cuts it about four or five days sooner than the crop is usually cut, and when the joint of the stalk is green. It is first carefully dried in the field, and when removed to the barn, the sheaves are set singly, to become perfectly so. After the grain is threshed and cleaned, it is spread abroad and turned, when, at the end of three weeks it will be found to have lost at least one bushel in twenty: it is then put into close bins, in the assurance that it will make perfectly sweet flour, imparting elasticity and life and excellent flavour to the bread into which it is manufactured. He very properly observes, "Any fermentation causes injury; if the grain is not properly cured in the field—if it is exposed, after it is cut and cured in the sheaf, to dampness—if it is kept close after it is threshed, so as to gather moisture—if it is suffered to heat after it is floured—or even if after the flour is made into dough it be permitted to ferment beyond a certain point—in either case, the article is worth scarcely half price." Gerard Smith.

Schuylkill Co.

For the Farmers' Cabinet.

The Borer, again.

I am glad to find that the experience of a "Montgomery County Farmer" confirms the correctness of my own opinions; for he says, "The most effectual preventive that I have tried is to keep the ground for a few inches round the tree entirely clear of all rubbish, at all seasons, not suffering grass, loose bark, or *clods of earth* to touch the tree." Now this is precisely what I recommend; but perhaps I go an inch or two deeper than my unknown friend, and, like the Indian who makes his picaninny "all face" by exposing him naked to the influence of all kinds of weather, I make the upper part of the roots for a few inches from the trunk of the tree, as hardy and as impenetrable and unpalatable to the worm as the trunk itself. I think it will generally be found that when the worm enters a root he does comparatively little injury; because if one or two roots be entirely eaten off, the main body of the tree remaining sound, new roots will very soon take the place of the old ones, and the tree will be none the worse; but when the trunk is injured or destroyed, a new one is not so readily formed.

As regards the proper mode of planting, my friend says he is "aware that very shallow planting is all the fashion with nurserymen, and perhaps the trees may grow as well or better for a season, but most people want them to last awhile as well as grow."

I can assure him that *my* object in advising shallow planting, is not only to make the trees grow well or better for one season, but for at least fifty; and in my journeyings through the country, it gives me great pleasure to see fine thrifty orchards, which originally came from my hands. I am so entirely convinced of the propriety of shallow planting, both by reason and experience, that until I meet with much sounder and more forcible

arguments than my friend advances, I must continue to recommend the practice to my friends and customers.

He thinks a tree should be planted so deep that the roots shall be lower than the usual depth of a furrow, otherwise they will be injured by the plough. By this plan the upper roots must be placed 8 or 9 inches below the surface, and all the roots will be in the subsoil; now if my friend had had as much experience in planting young apple trees, and had received as much information on the subject from others, who have been losers by deep planting, as myself and other nurserymen, he would know that a tree thus planted cannot thrive, but will barely live until new roots are thrown out where nature forms them—near the surface.

I believe it is as necessary to cultivate a young orchard as a corn-field, and not only for one or two seasons, but for many; and if it be properly done, the trees will not be injured, even if planted as shallow as the "fashion" and experience of nurserymen point out. My friend does not represent me quite fairly when he says I think it best to have the trees planted so shallow as to have the roots bare winter and summer; my words were, "in transplanting trees from a nursery, great care should be taken not to plant them too deep; let the upper roots be so near the surface of the ground, that *a little basin formed about the tree*, may expose the *upper part* of them to the sun and air."

Thus the upper roots may be two or three inches below the general surface of the ground; and for one or two seasons after transplanting I think it would be quite as well to keep the roots covered a little, and devote additional time and care in searching for the first indication of the presence of a worm; and I certainly did not mean to advise a neglect of a frequent examination for it; in doing which I would recommend the use of a piece of annealed wire, a few inches long, instead of a piece of tough wood. In ploughing an orchard of young trees, it is not necessary or proper that the plough should run nearer the tree than two or three feet; a spade will readily turn up the remaining space, and both the roots and the body of the tree will escape injury.

S. Rhoads, Jr.

The lovers of sweet flowers may derive advantage from the knowledge, that sandy or gravelly soils promotes the secretion of aroma. Those flowers of the richest perfume, are natives of sandy lands, Persia, Arabia, &c., and those in pots should therefore be supplied with a portion of sand or gravel.—*Western Farmer.*

For the Farmers' Cabinet.

Foul Air in Stables.

At the last meeting of the Philadelphia Agricultural Society, a member drew the attention of the company to the fact established by Liebig, in his late work, "Organic Chemistry," that plaster of Paris (gypsum) has the property of absorbing volatile ammonia; and urged upon all those who keep stock, the very simple mode by which their stables could be rendered perfectly sweet, healthy, and inodorous, merely by scattering abroad about a bushel of the pulverized gypsum per month on the floors, by which means the complaints and evils arising from the stench of confined stables — weak eyes, &c., would be prevented, the gypsum used being rendered far more valuable by such application, for the purpose of manure. He also very judiciously remarked, that the hay and fodder, which are generally deposited over our horses in their stables must become greatly contaminated by the penetrating effluvia of ammonia arising from the urine, which also might be remedied by the application above recommended. In Liebig's book, p. 238, are the following observations on this highly important subject.

"The carbonate of ammonia, formed by the putrefaction of urine, can be fixed or deprived of its volatility in many ways; if a field be strewed with gypsum, and then with putrefied urine, or the drainings of dunghills, all the carbonate of ammonia will be converted into the sulphate, which will remain in the soil. But there are still simpler means of effecting this purpose — gypsum, chloride of calcium, sulphuric or muriatic acid, and super-phosphate of lime, are all substances of a very low price, and completely neutralize the urine, converting its ammonia into salts, which possess no volatility. If a bason filled with concentrated muriatic acid is placed in a common privy, so that its surface is in free communication with the vapours which rise from below, it becomes filled, after a few days, with crystals of muriate of ammonia. The ammonia, the presence of which the organs of smell amply testify, combines with the muriatic acid, and loses entirely its volatility, and thick clouds or fumes of the salt newly-formed, hang over the bason. In stables, the same may be seen; the ammonia that escapes in this manner is not only entirely lost as far as vegetation is concerned, but it works also a slow, though not less certain destruction of the walls of the building, for when in contact with the lime of the mortar, it is converted into nitric acid, which gradually dissolves the lime; the injury thus done to a building, by the formation of the soluble nitrates, has received, in Germany, a special name—*salpeterfrass.*

The ammonia emitted from stables and privies, is always in combination with carbonic acid: carbonate of ammonia and sulphate of lime, (gypsum) cannot be brought together, at common temperatures, without mutual decomposition; the ammonia enters into combination with the sulphuric acid, and the carbonic acid with the lime, forming compounds which are not volatile, and consequently, destitute of all smell. Now, if we strew the floors of our stables from time to time with gypsum, they will lose all their offensive smell, and none of the ammonia which forms can be lost, but all will be retained in a condition serviceable as manure."

Then, would it not follow, that the more gypsum is used for the absorption of ammonia in our stables the better; and ought it not to be scattered plentifully over the bedding of our cattle, horses, sheep, and hogs, as the most economical mode of preparing it for use?

P.

Advantages of High Cultivation.

Further inquiries have satisfied me that there is not a single crop well cultivated in New England, which will not, in ordinary seasons, pay a fair rent for the land, at current prices, and liberally compensate the labour and cultivation. Our proximity to quick markets gives great advantages over many parts of the country. In one of my visits to a town on the sea-shore of Massachusetts, in a region whose rock-bound surface seemed to set cultivation at defiance, I found several acres of land, subdued and improved at the rate of three hundred dollars per acre. Could this be afforded? Look at the case.

The land was made to produce three tons of hay to the acre. The price of hay in the vicinity has averaged for years, at least fifteen dollars. The value of one ton of hay per year, is sufficient to gather the crop and keep the land in condition: thirty dollars, then, are the nett return for the investment. These are examples of extraordinary expenditure and ample profits.

The crop of Indian corn is the greatest blessing to our country. The average crop in New England is thirty bushels. It is not difficult to produce fifty to an acre. I have known one hundred and eleven produced on an acre in Massachusetts, as measured after being shelled and dried. At fifty bushels per acre, rating the rough fodder as equal to a ton of English hay, and the grain at seventy cents per bushel, the return may be considered as equal to fifty dollars. Thirty dollars may be considered a high average price for cultivation, and this, including the interest upon the value of the land, at fifty dollars an acre.

Henry Colman.

Work for August.—Garden.

Cabbages—of all kinds may now be planted out; those already out must be kept clean.

Radishes—for fall use may now be sown.

Small sallading — of all kinds may now be sown.

Celery—plant out celery, and water in dry weather.

Strawberries — clean old beds and plant new, choosing the strongest runners for this purpose; well manuring and cultivating the soil by deep digging, or trenching, watering in dry weather.

Asparagus beds—must now be cleaned and dressed.

Peas and beans—for autumn use or pickling must now be planted.

Brussels sprouts, or kale — sow now, for spring use.

Cabbage-seed—for spring use must now be sown; the Early York, and other varieties, on a well-prepared seed-bed of fine mould.

Cucumbers, melons, &c., for pickles, must now be planted.

Fruit-trees—must be well attended to, and frequently dressed at the root with soap-suds, with which wash also the stems of the trees and branches, to loosen the bark and destroy worms with their eggs.

To the Editor of the Farmers' Cabinet.

Lime Ashes.

Can any of your readers account for the almost total worthlessness of the ashes from a lime-kiln, when compared with the regularly-burnt stone?—which *fact* can be ascertained, each one for himself, by experiment, without much labour or cost. That such is the case, the writer entertains no doubt, being informed by a most respectable and peculiarly correct, practical husbandman, that he once made the trial of one thousand bushels, that had been carefully deposited under a shed, as often as it was drawn from the kiln, to protect it from the weather, when, to his great surprise and mortification, no beneficial result was experienced from the application, either at the time of spreading or afterwards. Can its inefficacy arise from its having undergone a sort of *sublimation* by over-burning? Would some of your scientific correspondents be pleased to take the matter into consideration and inform us of the result, with the *why* and the *wherefore*.

Calx.

How much happiness in this life depends upon a cheerful disposition! It is not only pleasant in itself, but is the cause of pleasure to others. Gloom and discontent make an unhappy home, and only serve to feed the evil that they war against.

Orcharding.

When the profits of a good apple-tree are considered, some being known to give twenty dollars worth of fruit a year, it is surprising that more attention is not paid to orchards. Mr. Marret, a clergyman of some town in Maine, dependent on a scanty salary, contrived to give his two sons a liberal education from the avails of an orchard, cultivated by his own hands. Most men think, if they plant an orchard now, or even engraft one already planted, they may not live to derive any advantage from it — the fact is, too many cultivate their land more with a view to present profit than to more lasting benefit in future years, and this accounts for such bad management as is witnessed around us.

The present season, Mr. Peter Foster, whose orchard was noticed in the Monthly Visiter for August last, came over and spent the greater part of two days upon the little orchard attached to our premises; on some of the trees he placed as many as twenty-five to fifty grafts, first taking off the limbs that were unnecessary to the proper shape of the tree, and filling those that might be usefully left with two scions each; and with this stock, another limb was left to be resorted to, in case both grafts should fail. In this state, the trees were left until about a fortnight since, when on viewing them, and finding that most of the scions had started from the bud, Mr. Foster stripped one of the trees of its supernumerary limbs and branches, leaving directions to have the others treated in the same way; and this has since been done, the trunks of the trees standing divested of their foliage, except only the grafts themselves. The grafting took place on the 10th of May, and the stripping was performed about the 10th of June: the trees now present a beautiful appearance, and knowing that all the foliage upon them has sprung from the small shoots that were inserted only this spring, the idea associates itself with the appearance, that a tree of sour and distasteful apples, is, in a few weeks, converted into a tree soon to bear the choicest fruit. By this operation, we can readily perceive how the bearing of grafted fruit-trees may be hastened — the whole sap of the tree is at once thrown into the grafts, which will probably grow more the first season than they would have done in four, while the roots and body of the tree were affording nourishment to their natural limbs, and foliage of ten times the amount. Some of the newly-grafted scions had blooms upon them the present season, which will not, of course, be expected to produce fruit; but it would not more surprise us, to have those scions bear next year, than it has, to witness the progress which they have already made.

The orchard which has been grafted and nurtured by Mr. Foster, at Canterbury, only six years ago, produced last season something like one hundred bushels of the choicest fruit, and the product will soon be increased tenfold; it has now seven hundred trees, embracing most of the choicest kinds of apples produced in New England, and in half-a-dozen years more, no orchard in the state will probably compare with it.—*Monthly Visiter.*

To the Editor of the Farmers' Cabinet.

The Carrier Pigeon.

Sir, — I see by the late English papers, that these messengers were in requisition to convey the result of the Derby stakes to London — the distance from Epsom, where the races were held, is fifteen miles, and the papers say, "The flight of pigeons, carrying the all-important result to London and elsewhere, was the largest ever witnessed, and proves the increase of this favourite mode of transmitting intelligence. The result was known in London in sixteen minutes from the termination of the race." So, it would appear that the ordinary rate of flight is about one mile a minute! It is added, "It was a singular sight; one after another was let off, each pigeon having a slip of paper tied to his wing or to his foot, on which was written the word 'Coronation': they all rose very high into the air, made several circular sweeps, and then suddenly darted off like an arrow, to the place of their destination." The account concludes, "The races were attended by more than 100,000 persons; immense sums of money were lost and won, and there was an inconceivable amount of vice and crime perpetrated!" D.

I have observed, that a married man falling into misfortune, is more apt to retrieve his situation in the world than a single one; partly because he is more stimulated to exertion by the necessities of the helpless beings who depend upon him for subsistence: but chiefly because his spirits are soothed and relieved by domestic endearments, and his self-respect kept alive by finding that though all abroad is darkness and humiliation, yet there is still a little world of love at home, of which he is the monarch. Whereas, a single man is apt to run to waste and self-neglect; to fancy himself lonely and abandoned, and his heart to fall to ruin, like some deserted mansion, for want of an inhabitant.—*Washington Irving.*

The size of a plant is proportional to the surface of the organs which are destined to convey food to it. A plant gains another mouth and stomach with every new fibre of root, and every new leaf.

Premiums

Proposed by the Philadelphia Society for Promoting Agriculture, for the Exhibition to be held on the 29th and 30th of September, 1841, at the Old Rising Sun Tavern, Germantown road.

Horses.

For the best thorough-bred Stud Horse $10
For the next best do. do. { *Certificate of Merit.*
For the best Stud Horse adapted to the field and road 10
For the next best do. do. ..... certificate.
For the best thorough-bred Brood Mare 10
For the next best do. do. ..... certif.
For the best Brood Mare adapted to the field and road 10
For the next best do. ..... certif.
For the best Horse Colt between 2 and 3 years old 8
For the next best do. do. do. ..... certif.
For the best Filly or Mare Colt, do. 8
For the next best do. do. do. ..... certif.
For the best Horse Colt between 1 and 2 years old 5
For the next best do. do. do. ..... certif.
For the best Filly, do. 5
For the next best do. do. ..... certif.

Neat Cattle over Two Years old.

For the best Durham Bull over 3 years old $10
For the next best do. do. ..... certif.
For the best do. between 2 and 3 years 8
For the next best do. do. ..... certif.
For the best Devon Bull 8
For the next best do. ..... certif.
For the best Ayrshire Bull 8
For the next best do. do. ..... certif.
For the best Alderney do. 8
For the next best do. do. ..... certif.
For the best Durham Cow over 4 years old 10
For the next best do. do. do. ..... certif.
For the best do. do. between 2 and 4 years old 10
For the next best do. do. do. ..... certif.
For the best Devon do. 8
For the next best do. do. ..... certif.
For the best Ayrshire do. 8
For the next best do. do. ..... certif.
For the best Alderney do. 8
For the next best do. do. ..... certif.
For the best Cow of any other breed 8
For the next best do. do. ..... certif.
For the best Ox or Steer raised in Pennsylvania .. 10
For the next best do. do. ..... certif.

Neat Cattle under Two Years old.

For the best Durham Bull between 1 and 2 years old $6
For the next best do. do. ..... certif.
For the best bull of other improved breed do. 6
For the next best do. do. do. .... certif.
For the best Durham Bull Calf between 4 months and 1 year old 5
For the next best do. do. do. ..... certif.
For the best Bull Calf of other breed do. 5
For next best do. do. do. ..... certif.
For the best Durham Heifer between 1 and 2 years old 6
For the next best do. do. do. ..... certif.
For the best do. of other improved breed 6
For the next best do. do. do. ..... certif.
For the best Durham Heifer Calf between 4 months and 1 year old 5
For the next best do. do. do. .... certif.
For the best Heifer of other improved breed 5
For next best do. do. do. .... certif.
For the best Steer between 1 and 2 years old 5
For the next best do. do. ..... certif.

Sheep.

For the best Long-Wooled Buck $4
For the next best do. do. do. ..... certif.
For the 4 best do. do. Ewes 5
For the 4 next best do. do. do. ..... certif.
For the best Short do. Buck 4
For the next best do. do. do. ..... certif.
For the 4 best do. do. Ewes 5
For the 4 next best do. do. do. ..... certif.
For the 4 best Lambs of any breed 4
For the 4 next best do. do. ..... certif.

Hogs.

For the best Berkshire Boar over 1 year old $4
For the next best do. do. do ..... certif.
For the best do. do. under 1 year old 3
For the next best do. do. do. ..... certif.
For the best do. Sow over 1 year old 4
For the next best do. do. do. ..... certif.
For the best do. do. under 1 year old 3
For the next best do. do. do. ..... certif.
For the best brood of Pigs, not less than 5 4
For the next best do. do. ..... certif.

Similar premiums will be allowed for the same classes of hogs of other breeds.

No animal that has previously taken the Society's First Premium, will be allowed to compete in the same class.

The above-named Stock must have been owned *and* kept in Pennsylvania, 6 months, (if of that age,) previous to Exhibition, to be entitled to compete.

Agricultural Implements, &c.

For the best Plough $5
For the next best do. ..... certif.
For the best Drilling Machine 3
For the next best do. do. ..... certif.
For the best Grain or Grass Sowing do. 4
For the next best do. do. do. ..... certif.
For the best Mowing or Reaping Machine 6
For the next best do. do. do. ..... certif.
For the best Straw and Hay Cutter 4
For the next best do. do. ..... certif.
For the best Root or Vegetable Cutter 4
For the next best do. do. ..... certif.
For the best Corn Sheller 5
For the next best do. ..... certif.
For the best Display of Agricultural Implements 6
For the next best do. do. ..... certif.
For the best Display of Agricultural Produce, such as grain, butter, plants, &c. 6
For the next best do. do. ..... certif.

Any newly-invented Agricultural apparatus will be entitled to appropriate premiums.

The Judges are authorized to withhold premiums where none is entitled to distinction; and where but one of a class is exhibited, they will award such premium as they think it merits. Those who intend to compete, must inform the Committee of Arrangement, before 11 o'clock on the first day of Exhibition.

All Stock, &c., contributed, must remain on the ground during the two days of Exhibition; and all Stock intended for sale, will be required to be registered in a Book provided by the Committee of Arrangement, at the following rates: For each horse, $2; for neat cattle, $1 each; for hogs and sheep, 50 cents each.

Kenderton Smith, James Pedder,
Franklin Comly, P. R. Freas,
James Gowen, Algernon S. Roberts,
Aaron Clement, Owen Jones,
Geo. W. Roberts,

Committee of Arrangement.

July 14, 1841.

Daniel Zollickoffer, of Carroll County, Maryland, and Joseph Sharp, Merchant, of Philadelphia, have just received a small invoice of the true Turgid Wheat, (Cone species,) by the ship Thomas P. Cope, which they had specially ordered two or three months since, intended only as an experiment.

In the event of its fully sustaining in this country the high reputation it bears in England, with reference to its adaptation to clay soils, the farming community will be notified in due time of the fact, and can then supply themselves accordingly.

The month of August being the best in which to sow the English broad Turnip for cattle, every rod of unoccupied land should be ploughed up and seeded with this crop, to form a supply for winter use. There will still be sufficient time to bring them to maturity; and every one knows from the experience of last winter, what will be the value of two or three hundred bushels extra of turnips, if such another trying season awaits us; the land upon which they are grown deriving a benefit from extra tillage quite equal to the expense of the labour. Let no one forget that "Winter follows on the heels of harvest."

To Subscribers.

The science of agriculture is at length beginning to demand from the community the regard which has ever been its due. In all parts of the world it is receiving the homage of the great and wise, the learned and the powerful; kings and princes and the nobles of all lands are vying with each other in the attempt to subserve its purposes, and in the most distant regions of the earth are its demands heard and acknowledged by all classes and denominations.

In no country, however, ought it to be more highly cherished than in this; blest as we are with a soil of unbounded extent and fertility, with fruitful and early seasons, a vast amount of population, and a prospect of future well-being and prosperity;—in such a land it is, that the science and practice of agriculture should take precedence of all other occupations and employments; for what would become of the immense masses of people which immigration is bringing to our shores, and trade and commerce are *forcing* into existence, were it not for the all-creating power of agriculture! It is from this source they can alone be fed, in all the vicissitudes of commercial advance and decline; for it is evident that no means *can* be adapted to an increase of population, but the incessant cultivation of the soil!

Nothing is so well calculated to subserve this great cause as the periodical publication of what is taking place on the important subject amongst the cultivators of the soil around us; thus forming a medium of communication and register of events between distant parts of the country, by which each might know what others are doing, and be taught by practical experience, the best means of obtaining the end in view.

The Farmers' Cabinet, now in its sixth year of publication, is peculiarly devoted to this purpose; its pages are open to contributors, who also might wish to use them for the purpose of inquiring what are the prospects and usages of their fellow-labourers in the cause throughout the world. Such an interchange of good offices and kind feelings must tend to the furtherance of the object in view, and stimulate the best powers of the mind and body towards its attainment.

To Postmasters.

The franking privilege in aid of the agricultural press of the country, which has been extended by the liberality of the general government to all postmasters, has given them the enviable opportunity to assist, in a most efficient manner, in the spread of agricultural science, throughout the length and breadth of the land — and numerous are the proofs we are constantly receiving, that such a privilege has not been conferred in vain. We are aware, however, that their influence has often been solicited in aid of trivial and unworthy publications; and it is not, therefore, matter of surprise, if some of them should be inclined to reject applications of this kind, without much examination into the real merits of the work.

We readily admit that no periodical is fairly entitled to the benefit of this liberal provision, which is not calculated to advance the substantial interests of the community—and to this test we would confidently refer the claims of the "Farmers' Cabinet," while we solicit the kind co-operation of postmasters throughout the Union, by promoting its circulation in their respective neighbourhoods; and we think they would be willing to do this, if they would only reflect on the great benefits they might thus bestow on their country, in the way of furthering the success of one of the noblest of causes, and adding, in an eminent degree, to the spread of that science which is enabling us to *feed the hungry* even of those countries, to which not long since we were looking for the means of subsistence. By their kind co-operation we are enabled to transact business in the most distant parts of the Union, their agency making plain the path before us; and will they be pleased to accept from the proprietors and publishers of the "Farmers' Cabinet and American Herd-Book," their best acknowledgments.

Philad., Aug. 15, 1841.

We would again remind our friends of the terms of subscription; by an observance of them, they would enable us to fulfil our terms of engagement with pleasure to ourselves and advantage to our subscribers. The fifth volume of the Cabinet may now be had, neatly bound and lettered, price $1.25, by application at the office—where also may be obtained complete sets from the commencement, at the same price per volume, together with all the standard works on Agriculture, Botany, and their relative branches; Science and the Arts.

The quantity of rain which fell during July (7th month,) was ..... 3.28 inches.

Pennsylvania Hospital, 8th mo. 1, 1841.

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